

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505T) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

82542-36

EPA Reg. Number:

Date of Issuance:

1/9/23

Term of Issuance:

Unconditional

Name of Pesticide Product:

S-Metolachlor EC Herbicide

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Source Dynamics, LLC 340 W. 32nd Street #383 Yuma, AZ 85364

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5). You must comply with the following conditions:

- 1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. This product is not registered for residential use. Child-resistant packaging (CRP) is required for this product if the registration is amended to allow residential use as defined under 40 CFR §157.21. CRP data must be conducted on this product's packaging and submitted for Agency review to support residential use.

Continues page 2

	1 8
Signature of Approving Official:	Date:
Mindy Ondish	1/9/23
Mindy Ondish, Product Manager 23 Herbicide Branch, Registration Division (7505T)	

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3. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF:

• Basic CSF dated 12/22/2022

If you have any questions, please contact Derek Corbin at 202-566-2571 or at Corbin.Derek@epa.gov.

Enclosure

S-METOLACHLOR GROUP 15 HERBICIDE

S-Metolachlor EC Herbicide

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

For weed control in beans, peas, and lentils; corn; cotton; grasses grown for seed; horseradish; peanuts; potatoes; pumpkin; rhubarb; safflowers; sweet, grain, or forage sorghum; soybeans; soybeans, immature seed; sugarcane; sugar beets; sunflowers; tomatoes

Active Ingredient:	BY WT.
S-metolachlor (CAS No. 87392-12-9)	82.4%
Other Ingredients:	<u>17.6%</u>
Total:	100.0%

S-Metolachlor EC Herbicide contains 7.70 lbs. of active ingredient per gallon. S-Metolachlor EC Herbicide is formulated as an emulsifiable concentrate (EC). This product contains a safener.

WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

	FIRST AID
If in eyes	 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.
If on skin or clothing	 Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice
If swallowed	 Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a Poison Control Center or doctor. Do not give anything to an unconscious person.
treatment. For ME	container or label with you when calling a poison control center or doctor or going for EDICAL emergencies call the National Poison Control Center at 1-800-222-1222. EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-

Source Dynamics, LLC 340 W. 32nd Street #383 Yuma, AZ 85364 tel. 928-503-1518

ACCEPTED 01/09/2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2007 40, 200

82542-36

EPA Reg. No. 82542-36 Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes or on clothing. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Waterproof gloves
- Shoes plus socks
- · Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.607(d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands thoroughly with soap and water immediately after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

Reporting Ecological Incidents: to report ecological incidents, including mortality, injury, or harm to plants and animals, call Source Dynamics, LLC at 928-503-1518

Groundwater Advisory

S-metolachlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of S-metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Non-target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Mixing/Loading/Application Instructions

When using this product take care to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Endangered Species Protection Requirements:

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product

Use S-Metolachlor EC Herbicide only in accordance with directions on this label.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- · Waterproof gloves
- Shoes plus socks
- · Protective eyewear

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

PRODUCT INFORMATION

Observe all precautions, restrictions, and limitations on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank mix partner is registered. Refer to and follow the label for each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

S-Metolachlor EC Herbicide is a selective herbicide for use as a preplant surface-applied, preplant incorporated, or preemergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in labeled crops.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Precautions

- Dry weather following preemergence application of S-Metolachlor EC Herbicide or a tank mixture may reduce effectiveness. Cultivate if weeds develop.
- If S-Metolachlor EC Herbicide is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.
- Certain states may have established rate limitations for atrazine within specific geographical areas.
 Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

- Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control.
- Injury may occur following the use of S-Metolachlor EC Herbicide under abnormally high soil moisture conditions during early development of the crop.

Restrictions

- DO NOT apply under conditions which favor runoff or wind erosion of soil containing this product to nontarget areas.
- To prevent off-site movement due to runoff or wind erosion:
 - DO NOT treat powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation. O DO NOT apply to impervious substrates, such as paved or highly compacted surfaces.
 - DO NOT use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- NOT for residential use.

SPRAY DRIFT MANAGEMENT

MANDATORY SPRAY DRIFT MANAGEMENT

Ground Boom Applications

- User must only apply with the release height recommended by the manufacturer, but no more than 4
 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

Aerial Applications:

- Do not release spray at a height greater than 10 ft. above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 mph at the application site.

Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

Boomless Ground Applications:

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

<u>Controlling Droplet Size – Ground Boom</u>

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use
 the highest practical spray volume for the application. If a greater spray volume is needed, consider
 using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

Adjust Nozzles – Follow nozzle manufacturers' recommendations for setting up nozzles.
 Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Herbicide Resistance Management

For resistance management, S-Metolachlor EC Herbicide is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to S-Metolachlor EC Herbicide and other Group 15 herbicides. Weed species with acquired resistance to Group 15 may eventually dominate the weed population if Group 15 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of S-Metolachlor EC Herbicide or other Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices including mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on
 resistance in target weed species is available, use the less resistance-prone partner at a rate that will
 control the target weed(s) equally as well as the more resistance-prone partner. Consult your local
 extension service or certified crop advisor if you are unsure as to which active ingredient is currently
 less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses
 historical information related to herbicide use and crop rotation, and that considers tillage (or other
 mechanical control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application
 method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties)
 and other management practices.
- Scout fields before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of noncontrolled plants of a particular weed species; or (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use nonchemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected
 resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have
 been reported, use the application rates of this product specified for your local conditions.
 Tank mix products so that there are multiple effective mechanisms of action for each target weed.
 Contact Source Dynamics at 928-503-1518.

SOIL TEXTURES AND HERBICIDE RATES

Where rates are based on coarse-, medium-, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

COARSE	<u>MEDIUM</u>	<u>FINE</u>
Sand	Loam	Sandy clay loam
Loamy sand	Silt loam	Silty clay loam
Sandy loam	Silt	Clay loam
•		Sandy clay
		Silty clay
		Clay

Within rate ranges in the rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

Note: S-Metolachlor EC Herbicide may be applied preemergence alone, or in combination with tank mix partners specified on this label, following preplant incorporated herbicides when used according to their label instructions, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

S-Metolachlor EC Herbicide APPLIED ALONE

Weeds Controlled

S-Metolachlor EC Herbicide is taken up by the shoots and/or roots of emerging weeds. This uptake results in the inhibition of shoot and root tissue growth soon after weed germination. Because S-Metolachlor EC Herbicide will not control emerged weeds, apply before weed emergence.

If S-Metolachlor EC Herbicide is incorporated, do not exceed a 2- to 3-inch depth. Any tillage after the S-Metolachlor EC Herbicide incorporation and before planting should not exceed 2-3 inches.

Dry weather following application of S-Metolachlor EC Herbicide may reduce weed control. Cultivate if weeds develop.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control. Control of these weeds can be erratic, due partially to variable weather conditions. The following procedures may improve the control of weeds listed as partially controlled in Table 1:

- 1. Thoroughly till soil to destroy germinating and emerged weeds.
- 2. Plant crop into moist soil immediately after tillage. If S-Metolachlor EC Herbicide is to be used preemergence, apply at planting or immediately after planting.
- If available, sprinkler irrigate within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1/2 inch) on coarse-textured soils and higher volume (1 inch) on fine- textured soils. Also, refer to the section on Center Pivot Irrigation Application for this method of applying S-Metolachlor EC Herbicide.
- 4. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

Table 1: Weeds Controlled or Partially Controlled by S-Metolachlor EC Herbicide Applied Prior to Weed Emergence

Common Name	Scientific Name	Control (C) or Partial Control (PC)
GRASSES		
Barnyardgrass	Echinochloa crus-galli	С
Crabgrass, large	Digitaria ischaemum	С
Crabgrass, smooth	Digitaria sanguinalis	С
Crowfootgrass	Dactyloctenium aegyptium	С
Cupgrass, Prairie	Eriochloa contracta	С
Cupgrass, Southwestern	Eriochloa acuminata	С
Cupgrass, woolly	Eriochloa villosa	PC ¹
Foxtail, bristly	Setaria verticillata	С
Foxtail, giant	Setaria faberi	С
Foxtail, green	Setaria viridis	С
Foxtail, millet	Setaria italica	С

Foxtail, yellow	Setaria pumila	С
Goosegrass	Eleusine indica	С
Johnsongrass (seedling)	Sorghum halepense	PC
Millet, wild-proso	Panicum miliaceum	PC ¹
Panicum, fall	Panicum dichotomiflorum	С
Panicum, Texas	Panicum texanum	PC
Rice, red	Oryza punctata	С
Sandbur, field	Cenchrus spinifex	PC
Ryegrass, Italian	Lolium multiflorum	С
Sandbur, Southern	Cenchrus spinifex	PC
Shattercane	Sorghum bicolor	PC
Signalgrass, broadleaf	Urochloa platyphylla	С
Sorghum (volunteer)	Sorghum bicolor	PC
Witchgrass	Panicum capillare	С

BROADLEAF WEEDS

Common Name	Scientific Name	Control (C) or Partial Control (PC)
Amaranth, Palmer	Amaranthus palmeri	С
Amaranth, Powell	Amaranthus powellii	С
Beggarweed, Florida	Desmodium tortuosum	PC
Carpetweed	Mollugo verticillata	С
Eclipta	Eclipta prostrata	PC
Galinsoga, hairy	Galinsoga quadriradiata	С
Galinsoga, smallflower	Galinsoga parviflora	С
Nightshade, Eastern black	Solanum ptychanthum	С
Nightshade, hairy	Solanum physalifolium	PC
Pigweed, prostrate	Amaranthus blitoides	С
Pigweed, redroot	Amaranthus retroflexus	С
Pigweed, smooth	Amaranthus hybridus	С
Pigweed, tumble	Amaranthus albus	С
Purslane, common	Portulaca oleracea	PC
Pusley, Florida	Richardia scabra	С
Spiderwort, tropical	Commelina benghalensis	С
Waterhemp, common	Amaranthus rudis	С
Waterhemp, tall	Amaranthus tuberculatus	С

SEDGES

Common Name	Scientific Name	Control (C) or Partial Control (PC)
Nutsedge, yellow	Cyperus esculentus	С

¹ Refer to the corn section of this label for additional information.

ROTATIONAL CROPS SECTION

Replanted Crop Directions

This section covers replant crops that may be planted following a lost crop that has had an application of S-Metolachlor EC Herbicide

If a crop treated with S-Metolachlor EC Herbicide is lost, any crop on this label may be replanted immediately provided that the rate of S-Metolachlor EC Herbicide applied to the previous crop was not greater than the labeled rate for the crop to be replanted. If the first application was banded and the replant crop is planted in the

center of the untreated bands, a second banded treatment may be applied at the rate for the use pattern for the replant crop, provided the application does not overlap the first application band.

Rotational Crop Directions

Any food or feed crops not listed below or in the Additional Rotational Crop Options table must NOT be planted within 12 months of the last application of this product.

Crop(s) Replant Interval

Barley, Oats, Rye, Wheat 4.5 months
Alfalfa 4.0 months
Clover 9.0 months

In order to make a replant application of this product, the previous crop must have had applied 2.0 pounds active ingredient, or less, of *S-metolachlor* (2 pints or less) per acre, and the previous crop must not have had a lay-by or other post-emergence application of this product.

Note: If rotating to a crop listed in one of the crop groupings below within 60 days of last application, injury to the new crop may result. Also, if the amount of this product applied to the previous crop was more than listed below, the crop must not be planted until the following spring.

Additional Rotational Crop Options

Note that not all crops within each group are specifically listed. The plant-back interval applies to all the crops in the specific EPA crop group or subgroup listed.

Amount of S-Metolachlor EC Herbicide Applied Previously (Pints per Acre)	Crops that May be Planted 60-days After the Last Application of S-Metolachlor EC Herbicide
≤1.32 pts/A	Crop Subgroup 1B: Root Vegetables (except sugar beet, except carrot)

Amount of S-Metolachlor EC Herbicide Applied Previously (Pints per Acre)	Crops that May be Planted 60-days After the Last Application of S-Metolachlor EC Herbicide
	Beet, garden; burdock, edible; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsnip; radish; radish, oriental; rutabaga; salsify; skirret; turnip Crop Subgroup 3-07B: Onion, green Chive leek, onion, Beltsville bunching; onion, fresh; onion, green; onion, Welsh; Shallot
	Crop Subgroup 4-16B: Brassica, leafy greens Bok choy; broccoli, Chinese; cabbage, Chinese (napa); collards; kale; greens, mustard; greens, turnip Crop Group 9: Vegetable, cucurbit Cantaloupe; citron melon; cucumber; gourd; muskmelon; pumpkin; squash, summer; squash, winter; watermelon Carrot; leaf lettuce; sesame; strawberry; Swiss chard
≤ 1.66 pts/A	Crop Group 8-10: Fruiting Vegetables (except Tabasco pepper Eggplant; ground cherry (<i>Physalis</i> spp.); okra; pepino; peppers, bell, chili, cooking, pimento & sweet; tomatillo; tomato

	Crop Subgroup 1C: Tuberous and Corm Vegetables
	Arracacha; arrowroot; artichoke (Jerusalem, Chinese);
	Cassava (bitter, sweet); chayote (root); chufa; dasheen (taro); ginger; potato; potato, sweet; tanier; turmeric; yam bean; yam, true
	Crop Group 3-07A: Onion, Bulb
	Garlic, bulb, garlic, great-headed; onion, dry bulb; shallot
≤ 1.98 pts/A	Crop Subgroup 22A: Stalk and Stem Vegetable (except
1100 pioni	Kohlrabi)
	Agave; asparagus; celtuce; fennel, Florence; fern, edible; kale, sea
	Crop Subgroup 22B: Leaf Petiole Vegetable
	Cardoon; celery, Chinese; celery; rhubarb
	Crop Subgroup 5-16: Brassica Head and Stem Vegetable
	Broccoli; Brussel sprouts; cabbage; cabbage, Chinese; cauliflower

NOTE: A second application of S-metolachlor to the crops in the above table must NOT be made within 60 days of the original application.

APPLICATION PROCEDURES APPLICATION TIMING

S-Metolachlor EC Herbicide alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to the given crop section of the label to determine if application timings listed below are indicated.

Application Method	Instructions
Preplant Surface Applied	Refer to individual crop section on this label to determine if early preplant surface application is indicated. For minimum-tillage or no-tillage systems only, S-Metolachlor EC Herbicide alone and some S-Metolachlor EC Herbicide tank mixtures may be applied up to 45 days before planting certain crops. For treatments made 30-45 days before planting, use only split applications, with 2/3 the labeled broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single application.
	If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, products containing glyphosate or paraquat). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.
Preplant Incorporated	Apply S-Metolachlor EC Herbicide to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate S-Metolachlor EC Herbicide after bed formation, unless specified otherwise.
Preemergence	Apply S-Metolachlor EC Herbicide during planting (behind the planter) or after planting, but before weeds or crops emerge.

Postemergence	S-Metolachlor EC Herbicide will not control emerged weeds so apply only to a
	weed-free soil surface or in tank mixture with products that provide
	postemergence control of weeds present at the time of application. Refer to
	the individual crop section of this label if a postemergence application is
	indicated.

SPECIAL APPLICATION PROCEDURES

CA Only (Beans, Peas, and Lentils; Corn; Safflowers): Preplant Incorporated: Broadcast S-Metolachlor EC Herbicide alone or with tank mix partners listed on this label to the soil and thoroughly incorporate with a disk or similar implement set to till 4-6 inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on flat surface or on beds. Use caution when forming the beds that only soil from the S-Metolachlor EC Herbicide treated zone is used (i.e., do not bring untreated soil to soil surface). If the application is made to preformed beds, incorporate S-Metolachlor EC Herbicide with a tillage implement set to till 2-4 inches deep. Take care during tilling to keep the tilled (S-Metolachlor EC Herbicide -treated) soil on the beds. **Preemergence:** Apply S-Metolachlor EC Herbicide after planting. Water with sprinkler or flood irrigation within 7-10 days.

Fall Application for Spring Weed Control (Only in IA, MN, ND, SD, WI, and portions of NE and IL - See specific instructions in the Beans, Peas, and Lentils; Corn; and Soybeans sections of this label for timing of application and other information): Do not apply to frozen ground. Use on medium and fine soils with greater than 2.5% organic matter that will be planted to corn or soybeans the next spring. Ground may be tilled before or after application. Do not incorporate deeper than 2 to 3 inches if tilled after treatment.

Restriction

• If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for the specific crop, or illegal residues may result.

Fall Application for Italian Ryegrass Control (Corn, Cotton, Grain and Forage Sorghum, and Soybean Only – See specific instructions in the Corn, Cotton, Grain and Forage Sorghum, and
Soybean sections of this label for timing of application and other information): S-Metolachlor EC
Herbicide may be applied in the fall (September 1-December 1) for residual control of glyphosate resistant
Italian ryegrass (Lolium multiflorum). A tillage operation may precede the application. Do not incorporate deeper

Restrictions

DO NOT apply S-Metolachlor EC Herbicide to frozen ground.

than 2-3 inches if tillage follows the application of S-Metolachlor EC Herbicide.

- All crops on the S-Metolachlor EC Herbicide label may be planted the following spring after application.
- If a spring application is made, the combined total amount of S-Metolachlor EC Herbicide applied in the fall plus the spring must not exceed the maximum seasonal S-metolachlor rate for the specific crop planted, or illegal residues may result.
- Refer to the crop sections on this label for specific directions.

Ground Application: Apply S-Metolachlor EC Herbicide alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. For S-Metolachlor EC Herbicide tank mixtures with wettable powder or dry flowable formulations, use screens and strainers no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

<u>band width in inches</u>
row width in inches

X

Broadcast rate
Per acre

=

amount needed
per acre of field

For information on applying in lower volumes of carrier, see **Low Carrier Application** section. For application by air or through center pivot systems, see **Spray Drift Management** sections. For information on impregnating dry fertilizer, see **Dry Bulk Granular Fertilizer** section. For information on application using variable-rate technologies, see **Variable-Rate Application** section.

SPRAY EQUIPMENT

LOW CARRIER APPLICATION

For Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5.0 gals. of spray mixture per acre. Maximum sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

Precautions

- Use low pressure nozzles to reduce drift and increase application accuracy.
- Take care when using automatic rate controlling devices to spray the material within the rated working
 pressure and flow ranges of the nozzles selected.
- Use nozzle screens when specified by the manufacturer.
- Place all nozzles on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended.
- Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

AERIAL APPLICATION

Apply S-Metolachlor EC Herbicide in water alone or in tank mixtures metribuzin in a minimum total volume of 2.0 gals./A by aircraft. S-Metolachlor EC Herbicide may be applied by air in combination with atrazine, linuron, benefin, pendimethalin, trifluralin, or metribuzin. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Apply at a maximum height of 10 ft., using low-drift nozzles at a maximum pressure of 40 psi, and only when wind speed does not exceed 15 mph. To ensure that spray will not adversely affect adjacent sensitive nontarget plants, apply S-Metolachlor EC Herbicide alone or S-Metolachlor EC Herbicide + atrazine by aircraft at a minimum upwind distance of 400 ft. from sensitive plants, or apply S-Metolachlor EC Herbicide + linuron or metribuzin at a minimum upwind distance of 300 ft. from sensitive plants.

Sensitive Areas

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoid application to humans or animals. Flagmen and loaders must avoid inhalation of spray mist and prolonged contact with skin.

CENTER PIVOT IRRIGATION APPLICATION

S-Metolachlor EC Herbicide alone or in tank mixture with other herbicides on this label, which are labeled for center pivot application, may be applied in irrigation water preemergence (after planting, but before weeds or crop emerge) at rates indicated on this label. S-Metolachlor EC Herbicide also may be applied postemergence to the crop and preemergence to weeds in crops where postemergence applications are allowed on this label. Follow all restrictions (height, timing, rate, etc.) to avoid illegal residues. Apply this product only through a center pivot irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, contact State Extension specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and

responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.

Restrictions

- DO NOT apply this product through any other type of irrigation system.
- DO NOT connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.

Operating Instructions

- 1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing checkvalve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoidoperated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.
- 8. Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- 9. Meter into irrigation water during entire period of water application.
- 10. Apply in 1/2-1 inch of water. Use the lower water volume (1/2 inch) on *coarse-textured soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

DRY BULK GRANULAR FERTILIZERS

Dry bulk granular fertilizers may be impregnated or coated with S-Metolachlor EC Herbicide alone or selected S-Metolachlor EC Herbicide tank mixtures provided that they are registered for preplant incorporated or preplant surface applications which are used to control weeds in crops on the S-Metolachlor EC Herbicide label; and that they are not prohibited from use on dry bulk granular fertilizers.

When applying S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide mixtures with dry bulk granular fertilizers, follow all directions for use, restrictions, and precautions on the respective product labels regarding target crops, rates, soil texture, application methods (including timing of application), and rotational crops restrictions.

Compliance with individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Prepare the herbicide/fertilizer mixtures by using any commonly used dry bulk fertilizer blender (such as closed drum, belt, ribbon) Nozzles used to spray S-Metolachlor EC Herbicide and S-Metolachlor EC Herbicide mixtures onto the fertilizer must be placed to provide uniform spray coverage. Take care to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material such as Agsorb® or Celatom MP-79, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Add absorptive materials only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Amounts of S-Metolachlor EC Herbicide, atrazine, atrazine + simazine, isoxaflutole, simazine, metribuzin, or ethafluralin can be calculated by using the following formula:

2,000 lbs. of fertilizer per acre	X	pts./A of liquid or flowable product	=	pts. of liquid or flowable product per ton of fertilizer
2,000 lbs. of fertilizer per acre	Х	lbs./A of dry product	=	lbs. of dry product per ton of fertilizer

Pneumatic (Compressed Air) Application (S-Metolachlor EC Herbicide Alone): High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix S-Metolachlor EC Herbicide with Exxon Aromatic 200 at a rate of 1.0-4.0 pts./gals. of S-Metolachlor EC Herbicide. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Do not use drying agents when using Aromatic 200.

Precautions

- Use mixtures of S-Metolachlor EC Herbicide and Aromatic 200 on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications.
- When impregnating S-Metolachlor EC Herbicide in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or drying agents of 6/30 particle size are recommended.

Restrictions

- To avoid potential for explosion, DO NOT impregnate S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide mixtures on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- **DO NOT** use S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.
- DO NOT use drying agents with On-The-Go impregnation equipment.

Application

Apply 200-700 lbs. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury. Nonuniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve weed control. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

Precaution

To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where bedding occurs.

MIXING INSTRUCTIONS

S-Metolachlor EC Herbicide Alone: Mix S-Metolachlor EC Herbicide with water or fluid fertilizer and apply as a spray. Fill the spray tank 1/2-3/4 full with water or fluid fertilizer, add the proper amount of S-Metolachlor EC

Herbicide, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

Tank Mixtures - follow this order:

- 1. Fill the spray tank 1/4 full with water, and start agitation;
- 2. Next add 2,4-D, atrazine, benefin, isoxaflutole, dicamba + atrazine, bentazon, 2,4-DB, metribuzin + chlorimuron-ethyl, prometryn, clomazone, fluometuron, EPTC, glufosinate, linuron, MSMA, simazine, pendimethalin, imazethapyr, imazaquin, metribuzin, ethafluralin, or trifluralin, and allow it to become dispersed:
- 3. Add S-Metolachlor EC Herbicide;
- 4. Then add paraquat, glyphosate + 2,4-D, or glyphosate if these products are being used;
- 5. And finally add the rest of the water.

For tank mixtures with atrazine, isoxaflutole, dicamba + atrazine, metribuzin + chlorimuron-ethyl, prometryn, clomazone, fluometuron*, EPTC, linuron, simazine, pendimethalin*, imazethapyr, imazaquin, metribuzin, ethafluralin, or trifluralin, fluid fertilizers may replace all or part of the water as carrier, except in the atrazine postemergence and the dicamba + atrazine postemergence tank mixes. For tank mixtures with atrazine, see additional mixing instructions on the atrazine label. For each mixture, check compatibility with fluid fertilizer, as described below, before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

*See **Special Mixing Instructions** for tank mixtures with fluometuron and with atrazine or simazine + pendimethalin under the appropriate tank mixture section.

For directions on how to conduct a compatibility test, see the Compatibility Test section.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

COMPATIBILITY TEST

A jar test is beneficial before tank mixing to ensure compatibility of S-Metolachlor EC Herbicide with other pesticides. The following test assumes a spray volume of 25 gals/A. For other spray volumes, make appropriate changes in the ingredients.

Precautions: Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with suspensions of fertilizer and pesticides.

Test Procedure

- 1. Add 1.0 pt. of carrier (fertilizer or water) to each of 2 one qt. jars with tight lids. **Restrictions:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
- 2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (1/4 tsp. is equivalent to 2.0 pts./100 gals. spray). Shake or stir gently to mix.
- 3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
- 4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) Slurry the dry pesticide(s) in water before addition, or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
- 5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

Example Tank Mix Partner Products To tank mix, fill the solution tank 1/4 full with water and commence agitation. If the product to be tank mixed is underlined in the table, add it first and allow to disperse. Next add S-Metolachlor EC Herbicide, followed by any products NOT underlined in the table. Then add the remaining amount of water.

Active Ingredient	Brand Name(s) Alternative brands may be used	EPA Registration Number(s) Alternative brands may be used
2, 4-D	Amine 4	42750-14-55467, 55467-14, 71368-1- 55467
	Lo-Vol 4	228-139-55467
	Lo-Vol 6	42750-20-55467, 71368-11-55467
2,4-DB	Butoxone	2749-126 & 2749-516
	Butyrac	42750-39 & 42750-38
Acifluorfen	Storm	70506-59
	Ultra Blazer	70506-60
Atrazine	Atrazine 4L	55467-13, 100-497-55467, 19713-11- 55467
	Atrazine 90DF	100-585-55467, 35915-3-55467
	AAtrex	100-497 & 100-585
Benfluralin	Balan 2.5G	8378-35
	Balan Dry Flowable	34704-746
Bentazon	Basagran	7969-45-(multiple),7969-112, 70506-434
	Broadloom	70506-306
Chlorimuron	Classic	5481-681
Clethodim	Select	59639-3
Clopyralid	Stinger	62719-73
Cloransulam	FirstRate	5481-676
Desmedipham	Betanex	254-620
Dicamba	Detonate	7969-137-55467,42750-209-55467
	Banvel	55467-38
Dicamba + Atrazine	Marksman	7969-136
Ethalfluralin	Sonalan	10163-355 & 10163-356
EPTC	Eptam	10163-281 & 10163-283
Fluometuron	Cotoran 4L	66222-181
Fomesafen	Flexstar	100-1101
	Flexstar GT	100-1325
	Reflex	100-993

	Fomesafen 1.88SL Herbicide	87655-3-82437	
Fluazifop-P-butyl	Fusilade	100-1070	
Fenoxaprop-P-ethyl + Fluazifop-P-butyl	Fusion	100-1059	
Flumetsulam	Python	5481-677	
Glufosinate	Autonomy	7969-448-55467	
	Interline	70506-310	
	Liberty	264-829 & 7969-448	
	Reckon 280SL	88685-2-84237	
Glyphosate	Roundup	524-549-(multiple)	
	Buccaneer	55467-9, 55467-10, 55467-15	
Glyphosate + 2,4-D	Landmaster BW	42750-62	
Imazethapyr	Pursuit	241-310	
Isoxaflutole	Balance Pro	264-600	
Linuron	Linuron DF	19713-251	
	Linex	61842-21	
	Lorox DF	61842-23	
Metribuzin	Lexone	352-382	
	Sencor	432-1469 & 264-738	
	TriCor	70506-68 & 70506-103	
Metribuzin + Chlorimuron	Canopy	352-444	
Metribuzin + Sulfentrazone	Authority MTZ	279-3340	
s-Metolachlor + Fomesafen	Prefix	100-1268	
MSMA	MSMA 6 Plus	19713-42	
	MSMA 6.6	19713-41	
	Target 6 Plus	42519-3	
	Target 6.6	42519-1	
Nicosulfuron	Accent XP	352-817	
Paraquat	Gramoxone	100-1431 & 100-1652	
	Paraquat Herbicide	82542-3	
Pendimethalin	Acumen	241-337-55467, 70506-318,	
	Prowl	241-337 & 241-418	
	Satellite 3.3	70506-318	
	Satellite HydroCap	70506-230	
Prometryn	Caparol	100-620	
Quizalofop-P-ethyl	Assure II	5481-646	

Primisulfuron-methyl	Beacon	100-705
Saflufenacil	Sharpen	7969-278
Saflufenacil + Dimethenamide-P	Verdict	7969-279
Sethoxydim	Poast	7969-58- (multiple)
Simazine	Princep	100-526 & 100-603
Sulfentrazone+ Cloransulam	Sonic	62719-680
	Gauntlet	279-3246
Sulfentrazone + Chlorimuron	Authority Maxx	279-9560
Sulfosate	Touchdown	100-1117
Trifluralin	Treflan	34704-853-(multiple)
Trisulfuron-methyl	Upbeet	279-9584

CROP USE DIRECTIONS

CORN (ALL TYPES) – S-Metolachlor EC Herbicide ALONE

Apply either preplant surface, preplant incorporated, preemergence, postemergence, or lay-by, using the rate specified below.

PREPLANT SURFACE-APPLIED

Refer to instructions for use of S-Metolachlor EC Herbicide alone under Application Procedures.

Fall Application for Spring Weed Control:

- Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.66-1.98 pts./A on *medium-textured* and 1.98 pts./A on *fine-textured soils*. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not incorporate deeper than 2-3 inches. Minimize furrow and ridge formation in the tillage operations.

Fall Application for Italian Ryegrass Control: S-Metolachlor EC Herbicide may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply S-Metolachlor EC Herbicide at 1.32-1.66 pts./A in the fall (September 1-December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower S-Metolachlor EC Herbicide rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. Do not incorporate to a depth greater than 2-3 inches if tillage follows the application of S-Metolachlor EC Herbicide. For fall applications after emergence of glyphosate-resistant Italian ryegrass, paraquat can be tank mixed with S-Metolachlor EC Herbicide to control emerged ryegrass. Refer to the paraquat label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with S-Metolachlor EC Herbicide for control or improved control of other weeds present at the time of application.

Restrictions

- DO NOT apply S-Metolachlor EC Herbicide to frozen ground.
- **DO NOT** apply more than 3.87 pts/A (3.71 lbs ai) per year (depending on soil texture) through any combination of applications.

Fall Application for Control or Suppression of Yellow Nutsedge (ID, OR, and WA only): For preemergent control or suppression of yellow nutsedge the following spring, apply 1.32 pts./A of S-Metolachlor EC Herbicide in the fall after the harvest of the previous crop but before freeze-up. Fall applications of S-Metolachlor EC Herbicide can be surface-applied or incorporated.

Restrictions

- **DO NOT** make more than one fall application per crop.
- **DO NOT** apply more than 1.32 pts./A in a single fall preplant application.
- DO NOT apply to frozen ground.
- **DO NOT** apply more than 3.87 pts/A (3.71 lbs ai) per year (depending on soil texture) through any combination of applications.

EARLY PREPLANT APPLICATIONS

Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the labeled rate of S-Metolachlor EC Herbicide (1.66 pts./A on *medium soils* and 1.98 pts./A on *fine soils*) as a split treatment 30-45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Apply 1.32 pts./A on *coarse soils* not more than 2 weeks before planting.

Restriction

• **DO NOT** apply more than 3.87 pts/A (3.71 lbs ai) per year (depending on soil texture) through any combination of applications.

On medium- and fine-textured soils with minimum- or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, and WV, preplant surface applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., atrazine, primisulfuron-methyl, atrazine + s-metolachlor, nicosulfuron, dicamba + atrazine, bentazon, bromoxynil, or 2,4-D. If the postemergence treatment includes the herbicide used preplant surface-applied, do not exceed the total labeled rate for corn on a given soil texture. For extended residual or control of heavy weed infestations, up to 2.58 pts/A is allowed. Observe all directions for use, precautions, and limitations on the label of the postemergent herbicide.

PREPLANT INCORPORATED OR PREEMERGENCE

Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures**. On *coarse soils*, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.32 pts./A if organic matter content is 3% or greater. On *medium soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.66-1.98 pts./A if organic matter content is 3% or greater. For extended residual or control of heavy weed infestations, up to 2.58 pts/A is allowed.

POSTEMERGENCE OR LAY-BY

To extend the duration of weed control in corn, a maximum rate of 1.98 pts./A of S-Metolachlor EC Herbicide may be applied after corn emergence until the corn plants reach 40 inches in height, following any preplant surface-applied, preplant incorporated, or preemergence herbicide application, including S-Metolachlor EC Herbicide. For best results, apply to soil free of emerged weeds and directed toward the base of corn plants taller than 5 inches. The total S-Metolachlor EC Herbicide rate applied on corn during any one year must not exceed 3.87 pts./A, depending on soil texture.

Restrictions for all applications to corn

- DO NOT graze or feed forage from treated areas for 30 days following application.
- PHI (Pre-Harvest Interval): DO NOT harvest sweet corn ears from treated areas for 30 days following application.

PROBLEM WEED CONTROL DIRECTIONS

Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta – Partial Control: For more consistent partial control of these weeds, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide preplant incorporated followed by 0.99-1.32 pts./A of S-Metolachlor EC Herbicide preemergence. Make the premergence application during or after planting, but before weeds and corn emerge. Use the 1.32 pts./A rate when a heavy infestation is expected. A shallow cultivation may be needed to control any late emerging weeds.

Woolly Cupgrass and Wild Proso Millet Control Program: For control of these species, use the following 3-step program: (1) Apply S-Metolachlor EC Herbicide early preplant, preplant incorporated, or preemergence at 1.66 pts./A on *medium soils* and 1.98 pts./A on *fine-textured soils*, up to the maximum label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5-7 days; (2) Apply a postemergence tank mix of primisulfuron-methyl at 0.38 oz./A at 1 packet per 4 acres plus nicosulfuron at 0.33 oz./A plus 1.0 qt. of crop oil concentrate plus 1.0 gal./A of 28% nitrogen, or the equivalent amount of ammonium sulfate, when grasses are 2-3 inches tall and the corn is at least 4 inches tall; and (3) Cultivate 14-21 days after the postemergence application.

In the event of escape of annual weeds following a preplant surface, preplant incorporated, or preemergence treatment of S-Metolachlor EC Herbicide, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., atrazine, primisulfuron-methyl, atrazine + s-metolachlor, nicosulfuron, dicamba + atrazine, bentazon, bromoxynil, or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the total labeled rate for corn on a given soil texture.

Restrictions

- **DO NOT** apply more than the labeled application rate for a given soil texture per year through any combination of applications.
- In corn, use up to 2.48 pts./A of S-Metolachlor EC Herbicide preplant surface, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%.
- Bromoxynil may be applied postemergence alone or in tank mix combination with atrazine. **DO NOT** exceed the allowed amount of atrazine in tank mix combination with bromoxynil postemergence. Refer to the atrazine, and bromoxynil labels for specific rates and precautions.
- DO NOT use S-Metolachlor EC Herbicide on peat or muck soils.

CORN – S-Metolachlor EC Herbicide COMBINATIONS

S-Metolachlor EC Herbicide in any tank mixture for corn may be applied in water or fluid fertilizer before corn emerges. Use only water as a carrier when S-Metolachlor EC Herbicide is applied after corn emergence.

Restrictions

- DO NOT graze or feed forage from treated areas for 30 days following application.
- Pre-Harvest Interval (PHI): DO NOT harvest sweet corn ears from treated areas for 30 days following application.

IMPORTANT: for tank mixtures with atrazine:

If applying S-Metolachlor EC Herbicide in tank mixture with atrazine, follow all restrictions and rate limitations on the atrazine label.

Some states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for more information. It is a violation of this label to deviate from state use regulations.

Table 2: S-Metolachlor EC Herbicide Tank Mixtures for Corn – Additional Weeds Controlled and Special Instructions

	S-Metolachlor Herbicide + atrazine and/ or simazine (Preplant Surface, PPI, PRE)	S-Metolachlor Herbicide + atrazine (Post)	S- Metolachlo r Herbicide + dicamba + atrazine (Field Corn)	S- Metolachlor Herbicide + atrazine + linuron	S-Metolachlor Herbicide + atrazine or simazine + pendi-methalin	S-Metolachlor Herbicide + atrazine + dicamba	S-Metolachlor + isoxaflutole
Special Mixing Instructions					1		
Comments	2,3,4,5,7,8	2,3,4,5		2,3,4,5,6	2,3,4,5	7	2,3,7
Browntop panicum	Х			Х	Х		Х
Cocklebur	Х	0	0	Х	Х		0-X
Common purslane	Х			Х	Х	Х	Х
Hairy nightshade	Х			Х	Х		Х
Jimsonweed		Х	0			Х	Х
Kochia		Х				Х	Х
Lambsquarters	Х	Х	Х	Х	Х	Х	Х
Morningglory	Х	0	0	Х	Х		Х
Mustard		Х				Х	Х
Pigweed				Х	Х	Х	Х
Prickly sida		Х					
Ragweed	Х	Х	Х	Х	Х	Х	Х
Smartweed	Х	Х	Х	Х	Х	Х	Х
Velvetleaf	Х	Х	0	Х	Х	0-X	0-X

X = control; 0 = partial control; 0-X = partial to full control depending on ratio of products used or on weed population

Comments

- 1. Special Mixing Instructions for S-Metolachlor EC Herbicide + atrazine or simazine and pendimethalin
 - (1) Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation.
 - (2) To aid compatibility, add a compatibility agent, such as Unite or X-77®, at 4.0 pts./100 gals. of spray mixture.
 - (3) Then add the atrazine or simazine and allow it to become dispersed.
 - (4) Then add S-Metolachlor EC Herbicide and pendimethalin.
 - (5) Add the rest of the water.
- 2. Although a single formulation for atrazine or simazine is listed in the rate tables, other formulations may be substituted.
- 3. Restriction: DO NOT apply more than the labeled rate of atrazine per acre per year.
- 4. In Minimum-Tillage and No-Tillage systems, mix with paraquat for control of most emerged annual weeds and suppression of perennial weeds; or with glyphosate + 2,4-D for suppression of emerged field bindweed and control or suppression of annual weeds; or with or glyphosate for control of most emerged annual and perennial weeds.

5. Refer to the Corn – S-Metolachlor EC Herbicide Combinations – Tank Mixture with atrazine; or atrazine + 2,4-D; or atrazine + 2,4-D + dicamba + atrazine for Minimum-Tillage or No-Tillage Systems sections for specific directions for 2,4-D or dicamba + atrazine burndown combinations in Minimum-Tillage and No-Tillage systems.

S-Metolachlor EC Herbicide in any tank mixture for corn may be applied in water or fluid fertilizer, except as noted.

Refer to **Corn (All Types) – S-Metolachlor EC Herbicide Alone** for sequential postemergence treatments if escape weeds develop.

Restrictions

- For all applications to corn, DO NOT graze or feed forage from treated areas for 30 days following application.
- PHI (Pre-Harvest Interval): **DO NOT** harvest sweet corn ears from treated areas for 30 days following application.
- When applying S-Metolachlor EC Herbicide in tank mixture with atrazine, **DO NOT** exceed the allowed amount of atrazine per acre per year.

TANK MIXTURE WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE - PREPLANT SURFACE, PREPLANT INCORPORATED, OR PREEMERGENCE

In addition to the weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide + atrazine or simazine, or S-Metolachlor EC Herbicide + atrazine + simazine, applied preplant surface, preplant incorporated, or preemergence, also controls the following weeds: browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Apply S-Metolachlor EC Herbicide + atrazine or simazine or S-Metolachlor EC Herbicide + atrazine + simazine either preplant surface, preplant incorporated, or preemergence.

Preplant Surface-Applied: Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures** and under application instructions for S-Metolachlor EC Herbicide alone on corn. Apply the tank mixtures as a split or single treatment as indicated in the **S-Metolachlor EC Herbicide Alone – Preplant Surface-Applied** section of the label for corn.

Preplant Incorporated or Preemergence: Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures**. Apply S-Metolachlor EC Herbicide + atrazine or simazine, or S-Metolachlor EC Herbicide + atrazine + simazine, using the rates from Table 3 and labeled rates of these tank mix partners.

Restriction

 DO NOT apply more than the labeled rate for a given soil texture per year through any combination of applications.

Shattercane and Wild Proso Millet – Partial Control

For more consistent partial control of shattercane or wild proso millet where S-Metolachlor EC Herbicide is applied in tank mixture or sequentially with other registered corn herbicides, the following applications may be made:

- 1. Apply 0.99-1.32 pts/A of S-Metolachlor EC Herbicide + the labeled rate of atrazine or simazine preplant incorporated, followed by 0.99-1.32 pts./A of S-Metolachlor EC Herbicide preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge.
- 2. Apply S-Metolachlor EC Herbicide at 1.32 pts./A alone or in tank mix combination with the labeled rate of atrazine, or simazine, preplant incorporated. Do not exceed the total rate of triazine herbicide labeled in combination with S-Metolachlor EC Herbicide for corn grown on a given soil texture. Follow with a post-directed application of ametryn at the labeled rate. Refer to the ametryn label for specific directions for the post-directed application.
- Apply EPTC or butylate formulation at labeled rates preplant incorporated, followed by a
 preemergence application of S-Metolachlor EC Herbicide at 0.99-1.32 pts./A. Do not use EPTC on
 soils where rapid degradation has been shown to occur. Make the preemergence application during
 or after planting, but before weeds and corn emerge.

Note: When following the application regimes in numbers 1-3 above, a shallow cultivation may be needed after the preemergence or postemergence application to help control any late emerging shattercane or wild proso millet plants.

Restriction

 DO NOT apply more than 1.98 pts/A (1.88 lbs ai) of S-Metolachlor EC Herbicide in the preplant incorporated plus preemergence application on soils with less than 6% organic matter, or crop injury may result.

Table 3: S-Metolachlor EC Herbicide + atrazine or simazine, or S-Metolachlor EC Herbicide + atrazine + simazine, Preplant Incorporated or Preemergence – Corn (All Types)

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of atrazine and/or simazine.

Broadcast Rate per Acre

Soil Texture	Less than 3% Organic Matter	3% Organic Matter or Greater
COARSE	0.79-0.99 pts.	0.99 pt.
MEDIUM	0.99-1.32 pts.	1.32 pts.
FINE	1.32 pts.	1.32 - 1.66 pts

Use simazine rather than atrazine when heavy infestations of crabgrass or fall panicum are expected. On soils having between 6% and 20% organic matter, apply S-Metolachlor EC Herbicide up to 2.31 pts./A in tank mix combination with atrazine. Refer to the atrazine label for weeds controlled.

When using the tank mixture of S-Metolachlor EC Herbicide + atrazine + simazine, use equal rates of each as labeled when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of atrazine + simazine.

For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply the labeled rate atrazine, or the same total amount of atrazine + simazine with 1.32-1.66 pts./A of S-Metolachlor EC Herbicide.

TANK MIXTURE WITH ATRAZINE - POSTEMERGENCE

Weeds Controlled

barnyardgrass (watergrass) foxtail, yellow prickly sida cocklebur* iimsonweed purslane kochia crabgrass ragweed crowfootgrass lambsquarters smartweed fall panicum morningglory* velvetleaf foxtail, giant mustard yellow nutsedge foxtail, green pigweed

Apply 0.99 pt./A of S-Metolachlor EC Herbicide + labeled rate of atrazine on *coarse soils*, 1.32 pts./A of S-Metolachlor EC Herbicide + labeled rate of atrazine on *medium soils*, or 1.32-1.66 pts./A of S-Metolachlor EC Herbicide + labeled rate of atrazine on *fine soils*. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5 inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

Lay-by: Apply to corn plants no taller than 12 inches. Direct applications to corn taller than 5 inches to the base of the corn plants. Applications to corn plants less than 5 inches tall may be made over the top. Occasionally, some corn leaf burn may occur, but this should not affect later growth or yield. Do not apply this postemergence tank mixture in fluid fertilizer, or severe crop injury may occur.

^{*}partial control

For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on *fine-textured soils* above 3% organic matter, apply the labeled rate of atrazine, with 1.32-1.66 pts./A of S-Metolachlor EC Herbicide.

Tank mixtures of S-Metolachlor EC Herbicide + atrazine may be applied following use of any registered preplant surface-applied, preplant incorporated, or preemergence corn herbicide, including S-Metolachlor EC Herbicide + atrazine.

Restriction

• **DO NOT** apply more than 3.87 pts/A (3.71 lbs ai) of S-Metolachlor EC Herbicide, or more than the labeled rate of atrazine ai/A during any one year. Refer to the atrazine label for geographic, soil texture, and rotational restrictions.

TANK MIXTURE WITH DICAMBA + ATRAZINE

Preemergence: Use this tank mixture only on field corn which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI.

In addition to the weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide + dicamba + atrazine, applied preemergence, also controls lambsquarters, ragweed, and smartweed and will provide partial control of cocklebur, jimsonweed, morningglory, and velvetleaf.

Apply S-Metolachlor EC Herbicide + dicamba + atrazine preemergence. Broadcast labeled rate of dicamba + atrazine with 1.32 pts./A of S-Metolachlor EC Herbicide on *medium soils*, or with 1.32-1.66 pts./A of S-Metolachlor EC Herbicide on *fine soils*. Apply this tank mixture to the soil surface at planting or after planting, but before corn emerges. Plant corn at least 1.5 inches deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed covering device. Do not incorporate before corn emergence. If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than 1/2 inch deep.

Precautions

Avoid drift to sensitive nontarget plants, such as soybeans, during application, or injury may occur.

Restrictions

- DO NOT apply with aircraft.
- **DO NOT** apply on coarse soils or on soils with less than 2.5% organic matter.

Postemergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV): Apply 0.99-1.49 pts./A of S-Metolachlor EC Herbicide + labeled rate of dicamba + atrazine or dicamba by ground equipment when pigweed plants are less than 3 inches tall and before corn is taller than 5 inches in a minimum of 20 gals. of spray per acre. Use the lower rate on coarse-textured and low organic matter soils. Use the higher rate on fine-textured and high organic matter soils.

Precautions

Avoid drift to sensitive nontarget plants, such as soybeans, during application, or injury may occur.

Restrictions

DO NOT apply with aircraft.

TANK MIXTURE WITH ATRAZINE OR SIMAZINE + PENDIMETHALIN FOR PROLONGED CONTROL OF LAMBSQUARTERS AND PIGWEED IN FIELD CORN ONLY (NORTHEAST U.S., INCLUDING MI, IN, KY, AND STATES EAST OF THESE)

For prolonged control of lambsquarters and pigweed, in addition to a broad spectrum of annual broadleaf and grass weeds, S-Metolachlor EC Herbicide in tank mix combination with atrazine* or simazine + pendimethalin may be applied after planting, but before corn or weeds emerge. Apply by ground equipment in a minimum of 10 gals. of water or 20 gals. of liquid fertilizer. Apply by air in a minimum of 5.0 gals. of water. Refer to Table 3 of this label for rates of S-Metolachlor EC Herbicide. Apply tank mix partners as specified on their labels.

* **DO NOT** apply S-Metolachlor EC Herbicide in tank mix combination with atrazine 80W + pendimethalin, as this combination is not compatible. Other atrazine formulations may be used.

Mixing Instructions: See Comment No. 1 following Table 2.

Observe all directions for use, restrictions, and limitations on the respective product labels when applying these products in tank mix combination. Refer to the pendimethalin label for replanting instructions in the event of crop loss

TANK MIXTURE WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE WITH PARAQUAT, GLYPHOSATE + 2,4-D, OR GLUFOSINATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides paraquat, glyphosate + 2,4-D, or glyphosate should be tank mixed with S-Metolachlor EC Herbicide + atrazine, S-Metolachlor EC Herbicide + simazine, or S-Metolachlor EC Herbicide + atrazine + simazine. See Comment No. 7 following Table 2. The S-Metolachlor EC Herbicide, S-Metolachlor EC Herbicide + atrazine or simazine, or S-Metolachlor EC Herbicide + atrazine + simazine portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for S-Metolachlor EC Herbicide , S-Metolachlor EC Herbicide + atrazine or simazine, or S-Metolachlor EC Herbicide + atrazine + simazine - Preplant Surface, Preplant Incorporated, or Preemergence.

Application: Apply before, during, or after planting, but before the corn emerges. Add paraquat, glyphosate + 2,4-D, or glyphosate and apply as directed on the product label.

Paraquat: Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

Restrictions: Do not apply combinations containing paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Glyphosate + 2,4-D: See the label for weeds controlled, rates for specific weeds, and other information concerning use.

Glyphosate: See the glyphosate label for weeds controlled, rates, and other use directions. Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

Use simazine in preference to atrazine when heavy infestations of crabgrass or fall panicum are expected. When using the tank mixture of S-Metolachlor EC Herbicide + atrazine + simazine, use equal rates of atrazine and simazine as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of atrazine + simazine instead of the 1:1 ratio given. Refer to Comment No. 2 following Table 2 for atrazine 4L and simazine 4L conversions.

For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply the labeled rate of atrazine, or the same total amount of atrazine + simazine, with 1.32-1.66 pts./A of S-Metolachlor EC Herbicide.

TANK MIXTURE WITH ATRAZINE; OR ATRAZINE + 2,4-D; OR ATRAZINE + 2,4-D + DICAMBA + ATRAZINE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, S-Metolachlor EC Herbicide applied in combination with atrazine will kill most emerged small annual weeds. Apply S-Metolachlor EC Herbicide + labeled rate of atrazine before, during, or after planting, but before corn emerges, according to the rates in Table 3.

Where heavy crop residues exist, add labeled 3.8 lbs. ai/gals. of 2,4-D amine (such as Weedar 64, Weedar 64A, DMA-4 Herbicide, Weedone® 638 or Formula 40) to the spray tank last and apply in a minimum of 25 gals. of carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore, are recommended instead of water. Add X-77 surfactant at 0.99-1.98 qts./100 gals. of diluted spray, or another appropriate surfactant at its labeled rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). Apply before weeds are taller than 3 inches. If alfalfa is present, add dicamba + atrazine to the spray mixture at labeled rates and apply before alfalfa is taller than 6 inches.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add paraquat at the rate indicated on the product label in place of or in addition to 2,4-D, as indicated above. Do not apply paraquat in suspension-type liquid

fertilizer. Observe all directions for use, restrictions, and limitations on the respective product labels when applying these products in tank mix combination.

TANK MIXTURE WITH ATRAZINE + DICAMBA IN CONSERVATION TILLAGE - FIELD AND SILAGE CORN

In conservation tillage systems where corn is planted directly into a cover crop or previous crop residue, S-Metolachlor EC Herbicide + atrazine + dicamba will kill most emerged small annual weeds. Apply S-Metolachlor EC Herbicide + atrazine + dicamba before, during, or after planting, but before corn emergence on *medium* and *fine soils* with greater than 2.5% organic matter. For fields with existing vegetation taller than 3 inches or when very dry conditions exist, add paraquat at its standard rate. S-Metolachlor EC Herbicide + atrazine + dicamba may be applied postemergence to corn shorter than 3 inches and before weedy grasses exceed the 2-leaf stage.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds. Do not apply paraquat in suspension-type liquid fertilizer or use on emerged corn. Refer to the atrazine + dicamba label and follow all directions, limitations, restrictions, and information regarding application and use in corn.

TANK MIXTURE WITH ISOXAFLUTOLE - FIELD CORN ONLY

S-Metolachlor EC Herbicide and isoxaflutole have a complementary response and weed control profile which allows various tank mix rate combinations to be considered. The addition of isoxaflutole will improve the control of certain problem weeds, including Texas panicum, woolly cupgrass, and wild proso millet. S-Metolachlor EC Herbicide improves both the duration and spectrum of annual grass and small-seeded broadleaf weed control, in particular foxtails (yellow foxtail), witchgrass, and yellow nutsedge.

To reduce the risk of an adverse crop response, the isoxaflutole label does not allow applications to *coarse-textured soils* with less than 1.5% organic matter and warns about applications to all soils with less than 1.5% organic matter or with pH greater than 7.5, as well as applications made to areas in fields with clay knolls, eroded hillsides, and exposed subsoil. S-Metolachlor EC Herbicide has no adverse crop response warnings or use restrictions.

Select a rate option for S-Metolachlor EC Herbicide plus isoxaflutole by weighing the intensity of problem weed pressure (population presence and density) and your acceptance for risk of an adverse crop response. For example, where Texas panicum, woolly cupgrass, or wild proso millet is a primary target weed, use a tank-mix combination with a higher isoxaflutole rate for the given soil type.

Where the acceptance of an adverse crop response risk is low and/or a more general weed spectrum is targeted (especially yellow foxtail, witchgrass, or yellow nutsedge), use a tank-mix combination with a higher S-Metolachlor EC Herbicide rate for the given soil type. Where a target weed is listed as controlled on both product labels, a tank-mix combination option including intermediate rates of both products may be used. Where a target weed is listed as controlled on only one product label, do not apply a rate of that product below what is labeled for that weed on the individual product label, or unacceptable control may result. Follow all other directions for use, rate limitations, precautions, and restrictions on both the S-Metolachlor EC Herbicide and isoxaflutole product labels.

Do not use isoxaflutole on coarse-textured soils with less than 1.5% organic matter.

TANK MIXTURES FOR POSTEMERGENCE SALVAGE WEED CONTROL IN FIELD CORN ONLY

For postemergence control of weeds in specific types of field corn, the S-Metolachlor EC Herbicide combinations listed below may be used. Full season weed control from early preplant, preplant incorporated, or preemergence treatments can lead to maximum yield potential under competition-free conditions. However, if control of emerged weeds is needed, a postemergence program listed below can be applied to provide residual control for the remainder of the season.

Follow all label directions, instructions, restrictions, and limitations for each product used. For each tank mixture with S-Metolachlor EC Herbicide, apply only to the specific field corn type specified on the tank mix product label.

Restrictions

DO NOT use fluid fertilizer with these mixtures or corn injury may occur.

Precautions

In-row weed control may be reduced because of lack of coverage when applied to corn over 4 inches
tall.

S-Metolachlor EC Herbicide + Glufosinate Products Registered for Postemergence Use in Glufosinate-Tolerant Corn

These tank mixtures can be applied postemergence to weeds and corn from seed designated as corn warranted as being tolerant to glufosinate. Products containing glufosinate are used to provide postemergence control of a broad spectrum of grass and broadleaf weeds while the S-Metolachlor EC Herbicide provides residual control of grasses and certain broadleaf weeds listed in the label **section S-Metolachlor EC Herbicide Applied Alone** - **Weeds Controlled**. Refer to section **S-Metolachlor EC Herbicide Alone** - **Preplant Incorporated or Preemergence** and use the minimum rate per soil texture and organic matter classification for season-long residual control. Refer to the label of the glufosinate tank mix product for the postemergence application rates according to weed species and their maximum height at the time of postemergence application. Where multiple weed species are present, use the highest labeled rate to control the species and growth stages present. Follow all applicable use directions, limitations, restrictions, and precautions regarding application to corn on the S-Metolachlor EC Herbicide and tank mix product labels. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

S-Metolachlor EC Herbicide + Glyphosate for Postemergence Application to Glyphosate-Tolerant Corn

The tank mixture of S-Metolachlor EC Herbicide + glyphosate can be applied postemergence to weeds and to corn designated as glyphosate-tolerant. Application may be applied postemergence to glyphosate tolerant corn from emergence until corn reaches 30 inches tall or the V8 stage (8 leaves with collars), whichever comes first. This mixture will provide postemergence control of weed species on the glyphosate label and residual control of weed species on the S-Metolachlor EC Herbicide label. Use the minimum S-Metolachlor EC Herbicide rate postemergence with glyphosate in glyphosate-tolerant corn as specified in the **Corn – S-Metolachlor EC Herbicide Alone – Preplant Incorporated or Preemergence** section of this label according to soil texture and organic matter. Refer to the glyphosate label and follow appropriate use directions, application procedures, precautions, and limitations. Refer to the glyphosate label for directions for control of problem species. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

S-Metolachlor EC Herbicide + Glyphosate + Atrazine for Postemergence Application to Glyphosate-Tolerant Corn

The tank mixture of S-Metolachlor EC Herbicide + atrazine + glyphosate can be applied postemergence to weeds and to corn designated as glyphosate-tolerant. Application may be applied postemergence to glyphosate-tolerant corn from emergence up to 12 inches in height. This mixture will provide postemergence control of weed species on the glyphosate label and residual control of weed species on the S-Metolachlor EC Herbicide + atrazine label. Use the minimum S-Metolachlor EC Herbicide + atrazine rate postemergence with glyphosate in glyphosate-tolerant corn as specified in the Corn - S-Metolachlor EC Herbicide Combinations - Tank Mixture With atrazine or simazine, or atrazine + simazine - Preplant Incorporated or Preemergence section and Table 3 of this label according to soil texture and organic matter.

Follow all applicable use directions, limitations, precautions, and information regarding application to corn on the S-Metolachlor EC Herbicide, atrazine, and glyphosate labels for application to glyphosate-tolerant corn. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

COTTON - S-Metolachlor EC Herbicide ALONE

Application: Apply S-Metolachlor EC Herbicide postemergence to cotton and preemergence to weeds at 0.5-1.32 pts./A, according to the state limitations in the following Postemergence section.

AR, KS, LA, MS, TN, and Bootheel of MO - Apply preemergence only at 0.5-0.99 pts./A on sandy loams, 0.66-1.32 pts./A on *medium soils*, or 0.99-1.32 pts./A on *fine soils*.

NM, OK, and TX - Apply preplant incorporated or preemergence at 0.99 pt./A on sandy loams, 0.99-1.32 pts./A on *medium soils*, or 1.32 pts./A on *fine soils*.

Fall Application for glyphosate-resistant Italian Ryegrass Control: Apply S-Metolachlor EC Herbicide for residual control at 1.32-1.66 pts./A in the fall (September 1 - December 1) after harvest of the previous crop and before Italian ryegrass emergence. Use the lower rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. Do not incorporate deeper than 2-3 inches if tillage follows the application of S-Metolachlor EC Herbicide. For fall applications after emergence of glyphosate-resistant Italian ryegrass, paraquat can be tank mixed with S-Metolachlor EC Herbicide to control emerged ryegrass. Refer to the paraquat brands label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with S-Metolachlor EC Herbicide for control or improved control of other weeds present at the time of application.

Restrictions

- **DO NOT** apply to frozen ground.
- **DO NOT** apply more than the seasonal maximum for cotton (2.58 pts/A, depending on soil texture) through any combination of applications.
- **DO NOT** apply more than a total of 1.98 pts./A (1.89 lbs ai) on *coarse soils* or 2.58 pts./A (2.48 lbs ai) of S-Metolachlor EC Herbicide on *medium* and *fine soils* per year.
- DO NOT graze or feed forage or fodder from cotton to livestock, or illegal residues may result.
- **DO NOT** apply S-Metolachlor EC Herbicide on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed.
- DO NOT apply on Taloka silt loam.
- DO NOT use in Gaines County, TX

Preplant Incorporated (NM, OK, and TX Only): Apply to the soil and incorporate into the top inch of soil immediately before planting, at planting, or after planting, but before crop or weeds emerge. Use a rolling cultivator or similar implement to uniformly incorporate not more than 1 inch deep. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. Where furrow irrigation is used, wet the top of the bed for best results. If the crop is to be planted on beds, apply and incorporate after bed formation. Plant cotton below the zone of incorporation; i.e., at least 1 inch on *fine soils* and 1.5 inches on *coarse* and *medium soils*. If incorporated prior to planting, use a planter that will result in the least soil disturbance.

Note: For best control of yellow nutsedge and suppression of seedling johnsongrass, apply S-Metolachlor EC Herbicide pre-plant incorporated at the maximum rate for the soil texture, whether applied alone or mixed with prometryn.

Preemergence: Apply to the soil surface at planting or after planting, but before weeds or crop emerge.

Postemergence: Apply S-Metolachlor EC Herbicide broadcast over the top or directed to the soil surface according to the rate limitations listed below by state. Over-the-top postemergence application may be made not later than 100 days before harvest and directed-postemergence application may be made not later than 80 days before harvest. Application before weeds emerge or after clean cultivation to remove existing weeds is necessary since S-Metolachlor EC Herbicide will not control emerged weeds. S-Metolachlor EC Herbicide postemergence may be applied over any previous registered herbicide treatment. In sprinkler irrigated areas, sprinkler irrigate after application with 1/2-1 inch of water (1/2 inch on *coarse-textured soils* to 1 inch on *fine-textured soils*) to incorporate S-Metolachlor EC Herbicide. In furrow-irrigated areas, apply S-Metolachlor EC Herbicide, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least 1/2 inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of S-Metolachlor EC Herbicide.

VA, NC, SC, GA, FL, and AL: Apply postemergence at 0.99-1.32 pts./A.

TN, AR, KS, MS, MO, and LA: Apply postemergence at 0.5-1.32 pts./A.

TX, OK, NM, AZ, CA, and Clay Soils in AR: Apply postemergence at 0.99-1.32 pts./A before August 1.

Multiple Applications: Apply as a preplant incorporated or preemergence treatment and follow with an application postemergence to cotton before weeds emerge or after clean cultivation to remove existing weeds,

since S-Metolachlor EC Herbicide will not control emerged weeds. Apply S-Metolachlor EC Herbicide postemergence over a previous preplant or preemergence S-Metolachlor EC Herbicide application as shown in the following table.

	Multiple S-Metolachlor EC Herbicide Applications to Cotton			
State	Preplant Incorporated or Preemergence (Pt./A) + Postemergence			
MS, LA, TN, AR, KS, MO	0.5-1.32 (Preemergence Only)	+	0.5-1.32	
TX, OK, NM	0.99-1.32	+	0.99-1.32 before August 1	
NC, VA	0.99-1.32 (Preemergence Only)	+	0.99-1.32	

In sprinkler-irrigated areas, sprinkler irrigate after application with 1/2-1 inch of water (1/2 inch on *coarse textured soils* to 1 inch on *fine-textured soils*) to incorporate S-Metolachlor EC Herbicide. In furrow-irrigated areas, apply S-Metolachlor EC Herbicide, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least 1/2 inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of S-Metolachlor EC Herbicide.

For best control of yellow nutsedge and suppression of seedling johnsongrass, apply S-Metolachlor EC Herbicide preplant incorporated, preemergence, or postemergence to cotton and preemergence to weeds at the maximum rate for the soil texture, whether applied alone or in combinations. These treatments may be applied over previous registered herbicide treatments.

Precautions

- To avoid crop injury, DO NOT apply over the top in fluid fertilizer or any other adjuvant, surfactant, oil, or
 other pesticide not specified in the cotton section of this label.
- To avoid concentration in the seed furrow, DO NOT make broadcast applications of S-Metolachlor EC
 Herbicide to cotton planted in furrows more than 2 inches deep. Band applications may be made to
 cotton planted in furrows deeper than 2 inches, but band width must not exceed the width of the bottom
 of the furrow.
- In furrow-planted cotton, to avoid concentration in the furrow and potential injury, DO NOT apply S-Metolachlor EC Herbicide postemergence until after first "knifing" or cultivation to level soil surface.
- Over-the-top postemergence application may be made not later than 100 days before harvest and directed-postemergence application may be made not later than 80 days before harvest.

COTTON – S-Metolachlor EC Herbicide COMBINATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TANK MIXTURE WITH PROMETRYN

Apply S-Metolachlor EC Herbicide tank mixtures with prometryn preplant incorporated or preemergence in water or fluid fertilizer. When fluid fertilizer is used as a carrier for S-Metolachlor EC Herbicide, either alone or in combination with prometryn, mix only the amount that will be sprayed in one operation. These mixtures should not be allowed to stand without agitation. Only use water as a carrier for postemergence-directed application.

In addition to those weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide + prometryn, applied preplant incorporated or preemergence, controls the following weeds: junglerice, wild oats, annual morningglory, groundcherry, hairy nightshade, lambsquarters, malva, mustard, prickly sida (teaweed), purslane, ragweed, and shallow-germinating seedlings of cocklebur and coffeeweed. As a postemergence-directed application, prometryn provides postemergence control and residual control of weeds on its label, while

S-Metolachlor EC Herbicide provides residual control of weed species on its label. S-Metolachlor EC Herbicide will not control emerged weeds.

Preplant Incorporated or Preemergence: Apply S-Metolachlor EC Herbicide + prometryn, either preplant incorporated or preemergence, using the labeled rate of prometryn with the indicated rate of S-Metolachlor EC Herbicide from the table below. Plant cotton below the zone of incorporation; i.e., at least 1.0 inch on *fine soils* and 1.5 inches on *coarse* and *medium soils*. If incorporated before planting, use a planter that will cause the least soil disturbance.

S-Metolachlor EC Herbicide + Prometryn - Cotton (NM, OK, TX)

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of prometryn.

Broadcast Rate per Acre

Area	Soil Texture	Rate
ALL	Sand, loamy sand	DO NOT USE
OK, and Blacklands and Gulf	Loams	0.79-1.32 pts.
Coast of TX	Clays	1.32 pts.
Rio Grande Valley of TX		·
NM; High Plains, Rolling Plains,	Sandy loam	0.79-0.99 pt.
Edwards Plateau of TX; and Southwest TX	Loams	0.79-1.32 pts.
	Sandy clay loams, other clay soils	1.32 pts.

Postemergence Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and MO): Tank mix S-Metolachlor EC Herbicide with prometryn in water and apply postemergence directed in cotton for control of emerged weeds listed on the prometryn label and residual preemergence control of weeds controlled by S-Metolachlor EC Herbicide and prometryn, or application may be made after cultivation for residual preemergence control. These treatments may be applied over previous registered treatments, including S-Metolachlor EC Herbicide, provided the maximum label rate of any product is not exceeded. DO NOT apply over the top of cotton or injury may occur.

Apply S-Metolachlor EC Herbicide + prometryn in a minimum of 20 gals. of spray volume per acre. Follow the directions, restrictions, and precautions on the prometryn label when prometryn is applied as a postemergence-directed application. Refer to the directions, restrictions, and precautions for use of S-Metolachlor EC Herbicide under the **Cotton – S-Metolachlor EC Herbicide Alone – Postemergence** section.

Refer to the prometryn label for further instructions, restrictions, and limitations.

Precautions

To avoid concentration in the seed furrow, do not make broadcast applications of S-Metolachlor EC Herbicide + prometryn to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow.

Restrictions

- DO NOT apply on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed.
- **DO NOT** apply in cut areas of newly leveled fields, or in areas of excess salt.
- DO NOT apply to glandless cotton varieties.
- DO NOT graze or feed forage or fodder from cotton to livestock, or illegal residues may result.
- DO NOT apply on Taloka silt loam.
- DO NOT use in Gaines County, TX.

TANK MIXTURE WITH FLUOMETURON

Apply S-Metolachlor EC Herbicide in tank mixture with fluometuron preemergence for control of those weeds controlled by S-Metolachlor EC Herbicide alone and those as listed on the fluometuron label. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crop emerge, using the appropriate rates from the table below.

Apply the tank mixture postemergence to cotton but preemergence to weeds, or apply postemergence to both cotton and broadleaf weeds for control of weeds on the fluometuron label. Apply as a directed, semi-directed, or over-the-top spray. S-Metolachlor EC Herbicide will not control emerged weeds but will provide preemergence control of species on its label. Where rate ranges are given for fluometuron, use the higher rate when applying postemergence to weeds that are 2 inches or less. These treatments may be applied over previous registered treatments, including S-Metolachlor EC Herbicide, provided the maximum label rate of any product is not exceeded.

Mixing Instructions: Incompatibility may occur when tank mixing S-Metolachlor EC Herbicide and fluometuron. To help overcome this condition, fill the spray tank 1/4 full of water or fluid fertilizer and start agitation, add the fluometuron and allow it to become dispersed. Add X-77 at 0.5% volume/volume final spray (4.0 pts./100 gals.), then add the S-Metolachlor EC Herbicide and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension. **DO NOT** use fluid fertilizer as a carrier for postemergence applications.

Apply labeled rates of fluometuron with the rates of S-Metolachlor EC Herbicide below.

S-Metolachlor EC Herbicide + Fluometuron - Cotton

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of fluometuron.

Broadcast Rate per Acre

Soil Texture	Area 1: AR, LA, MS, Bootheel of MO and TN	Area 2: Eastern OK, Gulf Coast, RioGrande Valley, Eastern TX
Sand, loamy sand	DO NOT USE	DO NOT USE
Sandy loam	0.5-0.99	0.79-0.99
Loam, silt loam, silt	0.66-1.32	0.99-1.32
Fine soil	0.99-1.32	1.32

Refer to the fluometuron labels for further instructions, restrictions, and limitations.

Precautions

- To avoid crop injury, do not apply S-Metolachlor EC Herbicide + fluometuron on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed. **DO NOT** use on Taloka silt loam.
- To avoid concentration in the seed furrow, do not make broadcast applications of S-Metolachlor EC
 Herbicide + fluometuron to cotton planted in furrows more than 2 inches deep. Band applications may
 be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width
 of the bottom of the furrow.
- The use of fluometuron following the use of a systemic insecticide at planting may result in crop injury.

Restrictions

- DO NOT feed treated forage or gin trash to livestock, or graze treated areas.
- DO NOT use in Gaines County, TX.

TANK MIXTURE OF S-Metolachlor EC Herbicide OR S-Metolachlor EC Herbicide + FLUOMETURON WITH PARAQUAT, OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides paraquat, or glyphosate may be added to a tank mix of either S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide + fluometuron. When used as directed, the paraquat portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on the glyphosate label. The S-Metolachlor EC Herbicide and S-Metolachlor EC Herbicide + fluometuron portion of the tank mixture provides preemergence control of the weeds listed on this label in the S-Metolachlor EC Herbicide and S-Metolachlor EC Herbicide + fluometuron sections, respectively.

Refer to the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions, and all other precautions and limitations. Refer to **Mixing Instructions** under **Tank Mixture with fluometuron** section.

Application: Apply before, during, or after planting, but before the cotton emerges. Apply the labeled rate of fluometuron with S-Metolachlor EC Herbicide at 0.79-0.99 pt./A on sandy loams, *medium*-, and *fine-textured soils*.

Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

Paraquat: Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

Glyphosate: See the glyphosate label for weeds controlled, rates, and other use directions.

Precautions

- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.
- Refer to the fluometuron labels and the Tank Mixture with fluometuron section of this label for further instructions, precautions, and limitations.

Restrictions

- DO NOT apply combinations containing paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.
- DO NOT apply S-Metolachlor EC Herbicide + fluometuron + glyphosate in tank mixture because of compatibility problems.
- DO NOT use in Gaines County, TX.

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Tank mix S-Metolachlor EC Herbicide with MSMA in water and applied postemergence directed for control of emerged weeds listed on the MSMA product label and residual preemergence control of weeds controlled by S-Metolachlor EC Herbicide. The addition of prometryn or fluometuron will add control of weed species on their respective labels.

TANK MIXTURE WITH MSMA, MSMA + PROMETRYN, OR MSMA + FLUOMETURON

Postemergence Directed (AL, AR, AZ, CA, FL, GA, LA, MS, NC, NM, OK, SC, TN, TX, VA, and Bootheel of MO): Apply S-Metolachlor EC Herbicide + MSMA postemergence directed to cotton at least 3 inches tall according to the directions, limitations, and precautions on the MSMA product label, as well as the directions, limitations, and precautions for use of S-Metolachlor EC Herbicide in the section for Cotton – S-Metolachlor EC Herbicide Alone – Postemergence. Do not apply after first cotton bloom. These treatments may be applied over previous registered treatments, including S-Metolachlor EC Herbicide, provided the maximum label rate of any product is not exceeded. Fluometuron or prometryn may be added to the S-Metolachlor EC Herbicide + MSMA tank mixture according to the respective label directions for application to cotton at least 3 inches tall. When these mixtures are used, follow the mixing instructions for S-Metolachlor EC Herbicide + prometryn or fluometuron and then add the MSMA product.

Restriction

• **DO NOT** use S-Metolachlor EC Herbicide in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with S-Metolachlor EC Herbicide on cotton.

TANK MIXTURE WITH TRIFLURALIN FOR POST-DIRECTED FOLLOWED BY SOIL INCORPORATION APPLICATIONS

Apply S-Metolachlor EC Herbicide as a tank mixture with trifluralin in cotton for improved late-season weed control when used as an incorporated lay-by type application. This combination may be applied after the cotton is at least 3 inches tall and has reached the 4 true-leaf stage. Direct the application to the soil surface and away from the crop foliage. Incorporate using a sweep or rolling type cultivator to provide uniform and shallow mixing into the top 2 inches of soil. Refer to each product label for the appropriate application rates by soil type and for this application timing and follow all product use limitations and restrictions.

TANK MIXTURE WITH GLYPHOSATE FOR USE ON GLYPHOSATE-TOLERANT COTTON ONLY

Apply S-Metolachlor EC Herbicide as a tank mixture with glyphosate in water postemergence over-the-top or postemergence directed for control of emerged weeds listed on the glyphosate labels and for residual preemergence control of weeds listed on the S-Metolachlor EC Herbicide label. See the **Cotton – S-Metolachlor EC Herbicide Alone – Postemergence** section of this label for rates and timings of S-Metolachlor EC Herbicide and follow the glyphosate label for their respective rates, application methods, and application timing restrictions. Do not add additional spray adjuvants, surfactants, fertilizer additives, or pesticides to this tank mixture if applied postemergence over-the-top or unacceptable injury may occur. Refer to the glyphosate label and follow appropriate use directions, application procedures, precautions, and limitations.

Precautions

Postemergence over-the-top applications of this tank mixture may cause temporary injury in the form of necrotic spotting to exposed cotton leaves, which will not affect normal plant development.

Restrictions

- DO NOT apply this tank mixture postemergence to any cotton variety unless it is designated glyphosate-tolerant and unless the glyphosate formulation being used is registered for postemergence use in glyphosate-tolerant cotton.
- DO NOT apply glyphosate postemergence over-the-top to cotton past the growth stage limit specified on their respective labels.
- DO NOT use on sand or loamy sand soils in Gaines County, TX.

SOYBEAN, IMMATURE SEED

Apply S-Metolachlor EC Herbicide preplant or preemergence for the control or suppression of grass and small-seeded weeds in immature-seed soybean or other food-grade soybeans. For specific rates, see the rate table listed below.

Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, apply S-Metolachlor Herbicide alone up to 45 days before planting. Use only split applications for treatments made 30-45 days before planting, with 2/3 the labeled broadcast rate for the crop and soil texture applied initially and the remaining 1/3 applied at planting. Treatments less than 30 days before planting may be made either as a split or a single application. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (e.g., paraquat, or glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

Preplant Incorporated: Apply S-Metolachlor EC Herbicide to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate S-Metolachlor EC Herbicide after bed formation, unless specified otherwise.

Preemergence: Apply S-Metolachlor EC Herbicide during planting (behind the planter) or after planting, but before weeds emerge.

S-Metolachlor EC Herbicide Broadcast Rates Per Acre

	Percent Organic Matter in Soil				
Soil Texture	<3% ≥3%				
Coarse	0.99-1.32 pts.	1.32 pts.			
Medium	1.32-1.66 pts.	1.32-1.66 pts.			
Fine	1.32-1.66 pts. 1.66-1.98 pts.				

S-Metolachlor EC Herbicide will not control emerged weeds.

Restrictions

• DO NOT cut for hay within 120 days following a S-Metolachlor EC Herbicide application.

- DO NOT use for forage within 60 days following a S-Metolachlor EC Herbicide application.
- DO NOT apply more than 1.98 pts./A (1.87 lbs ai) of S-Metolachlor EC Herbicide during any one year.

GRASSES GROWN FOR SEED (ID, OR, WA) – S-Metolachlor EC Herbicide APPLIED ALONE

To control weeds and volunteer grasses in established grasses grown for seed, apply S-Metolachlor EC Herbicide to established stands of tall fescue, orchardgrass, perennial ryegrass, fine fescue, bentgrass, and Kentucky bluegrass just before, during, or immediately following the first fall rains or just before or during a late summer or early fall irrigation, but before target grasses emerge. The seed crop must have had one seed harvest or been established at least one year. The post-harvest residue (straw) should be evenly spread, removed, or burned before applying S-Metolachlor EC Herbicide. Rainfall or irrigation is required after application and before weed emergence for best control. S-Metolachlor EC Herbicide will provide preemergence control/suppression of volunteer seedlings of perennial ryegrass, fine fescue species, tall fescue, orchardgrass, bentgrass, and Kentucky bluegrass. S-Metolachlor EC Herbicide will control those weed species listed in the **S-Metolachlor EC Herbicide Alone** section of the S-Metolachlor EC Herbicide label and will suppress or control rattail fescue, annual bluegrass, Italian ryegrass, California brome, downy brome, and roughstalk bluegrass.

Apply S-Metolachlor EC Herbicide by ground equipment in a minimum of 10 gallons of water per acre using the rate listed below according to grass species.

Established Grass Crop Grown for Seed	Pt./A
Fine fescue species	0.99
Perennial ryegrass	0.99
Bentgrass	0.99-1.32
Kentucky bluegrass	0.99-1.32
Orchardgrass	0.99-1.32
Tall fescue	0.99-1.32

Precautions

- Tank mixtures with other pesticides, or the addition of an adjuvant, can increase the risk of crop injury.
 Application to perennial ryegrass and fine fescue stands under stress may cause crop injury.
- If weed escapes occur following a S-Metolachlor EC Herbicide application, an application of a postemergence herbicide may be necessary to control escapes. When making such an application, follow all directions, precautions, and limitations on the label of the postemergence herbicide.
- Control may be decreased if excessive straw from the previous harvest is present at application and/or insufficient rainfall/irrigation occurs.

Restrictions

- Apply S-Metolachlor EC Herbicide only once per year.
- DO NOT graze forage regrowth for 60 days following application west of the Cascades.
- In areas east of the Cascades, DO NOT graze forage regrowth for 150 days following application.
- Hay may be harvested anytime between seed harvest and the next application of S-metolachlor.
- DO NOT apply after the November 15 or poor control may result.

HORSERADISH

Apply a single application of S-Metolachlor EC Herbicide at a broadcast rate of 0.99-1.32 pts./A to the soil surface after planting, but before weed or crop emergence (i.e., preemergence). Use lower rates on soils relatively coarse-textured and higher rates on fine-textured soils. A band application may also be used, applying proportionally less spray mixture on the area actually treated. S-Metolachlor EC Herbicide will not control emerged weeds. Control emerged weeds with an appropriate registered foliar herbicide or by mechanical means.

Restrictions

- Apply S-Metolachlor EC Herbicide only once per year.
- DO NOT apply more than 1.32 pts./A (1.27 lbs ai) of S-Metolachlor EC Herbicide per year.

PEANUTS - S-Metolachlor EC Herbicide ALONE

Apply S-Metolachlor EC Herbicide, either preplant incorporated, postplant incorporated, or preemergence, using the appropriate rate specified below.

Preplant Incorporated or Preemergence: Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures**.

Postplant Incorporated: Apply and shallowly incorporate S-Metolachlor EC Herbicide into the soil after planting, but before peanut germination. Incorporation depth and incorporating implements must be kept above the seed, or seed will be damaged.

Apply S-Metolachlor EC Herbicide alone, preplant incorporated, postplant incorporated, or preemergence, at a broadcast rate of 0.99-1.32 pts./A in the Southeast* and 0.79-1.32 pts./A in NM, OK, and TX.

*In the Southeast, use 1.32-1.98 pts./A and apply preemergence for partial control of Florida beggarweed.

S-Metolachlor EC Herbicide alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their labels: benefin; trifluralin; ethafluralin; imazethapyr; or pendimethalin.

Restrictions

- DO NOT apply more than 1.98 pts/A (1.89 lbs ai) of S-Metolachlor EC Herbicide per year.
- DO NOT graze or feed peanut forage or fodder to livestock for 30 days following application.
- Pre-Harvest Interval (PHI): DO NOT apply within 90 days of harvest.

PEANUTS - S-Metolachlor EC Herbicide COMBINATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TANK MIXTURE WITH BENEFIN

S-Metolachlor EC Herbicide + benefin tank mixture applied preplant incorporated controls those weeds listed under **S-Metolachlor EC Herbicide Applied Alone** and those weeds as listed on the benefin label.

Apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide + labeled rate of benefin in a minimum of 10 gals. of spray volume per acre for ground application or in a minimum of 5.0 gals. of spray volume per acre for aerial application. Follow the procedures for benefin on the benefin label for soil preparation and incorporation of this tank mix. Apply and incorporate S-Metolachlor EC Herbicide + benefin up to 14 days prior to planting.

Follow all restrictions and precautions on the benefin label.

TANK MIXTURE OR SEQUENTIALLY WITH IMAZETHAPYR

The tank mixture or sequential treatment of S-Metolachlor EC Herbicide and imazethapyr controls all weeds controlled by S-Metolachlor EC Herbicide alone and by imazethapyr alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the imazethapyr label for weeds controlled by imazethapyr.

Refer to the respective labels for application methods, timing, rates, restrictions, and precautions; and use in accordance with the more restrictive label. Do not exceed the label rate of either product. S-Metolachlor Herbicide will not control emerged weeds.

TANK MIXTURE WITH ETHAFLURALIN

The tank mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by ethafluralin alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the ethafluralin label for weeds controlled by ethafluralin.

Apply S-Metolachlor EC Herbicide + ethafluralin preplant incorporated, using the appropriate rate from the table below. Follow labeled soil preparation procedures for ethafluralin.

S-Metolachlor EC Herbicide + Ethafluralin - Peanuts

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of ethafluralin.

Broadcast Rate per Acre

Soil Texture	Southeast	NM, OK, TX
COARSE	0.99-1.32 pts.	0.79-1.32 pts.
MEDIUM	0.99-1.32 pts.	0.79-1.32 pts.
FINE	0.99-1.32 pts.	0.79-1.32 pts.

TANK MIXTURE WITH PENDIMETHALIN

S-Metolachlor EC Herbicide + pendimethalin applied preplant incorporated controls all weeds controlled by S-Metolachlor EC Herbicide alone plus Texas panicum, field sandbur, johnsongrass from seed, lambsquarters, kochia, annual spurge, and other species on the pendimethalin label. Apply S-Metolachlor EC Herbicide + pendimethalin by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1-2 inches of soil before planting and within 7 days of application, using a finishing disk or similar implement capable of providing uniform incorporation. If peanuts will be planted on beds, apply and incorporate after bed formation. Refer to the **Incorporation** instructions of the respective labels for additional directions.

Apply S-Metolachlor EC Herbicide + pendimethalin preplant incorporated, using the appropriate rates from the table below.

S-Metolachlor EC Herbicide + Pendimethalin - Peanuts

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of pendimethalin.

Broadcast Rate per Acre

Soil Texture	NM, OK, TX	Other Peanut Growing States
Sand, loamy sand	0.79 pts.	0.99-1.32 pts.
Sandy loam	0.79-0.99 pts.	0.99-1.32 pts.
Fine soil	1.32 pts.	1.32 pts.

TANK MIXTURE WITH PARAQUAT

S-Metolachlor EC Herbicide + paraquat applied at ground cracking will control or suppress small (1- to 6inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **S-Metolachlor EC Herbicide Applied Alone** section of this label. Apply paraquat plus the appropriate S-Metolachlor EC Herbicide rate from the **Peanuts – S-Metolachlor EC Herbicide Alone** section in a minimum spray volume of 20 gals./A with ground equipment. Refer to the paraquat label and follow all directions, limitations, and restrictions.

TANK MIXTURE WITH PARAQUAT + BENTAZON

The addition of bentazon to the S-Metolachlor EC Herbicide + paraquat mixture will result in improved control of such problem broadleaf weeds as prickly sida, cocklebur, smartweed, and bristly starbur. S-Metolachlor EC Herbicide + paraquat + bentazon applied at ground cracking will control or suppress small (1- to 6-inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **S-Metolachlor EC Herbicide Applied Alone** section of this label. Apply bentazon + paraquat with the appropriate S-Metolachlor EC Herbicide rate from the **Peanuts – S-Metolachlor EC Herbicide Alone** section in a minimum spray volume of 20 gals/A with ground equipment. Refer to the paraquat and bentazon labels and follow all directions, limitations, and restrictions.

TANK MIXTURE WITH PARAQUAT + 2,4-DB

The addition of 2,4-DB to the S-Metolachlor EC Herbicide + paraquat mixture will result in improved control of such problem broadleaf weeds as sicklepod, morning glory, and cocklebur. S-Metolachlor EC Herbicide + paraquat + 2,4-DB applied at ground cracking will control or suppress small (1- to 6-inch) emerged annual grass

and broadleaf weeds and provide residual control of weed species listed in the **S-Metolachlor EC Herbicide Applied Alone** section of this label. Apply paraquat + 2,4-DB with the appropriated S-Metolachlor EC Herbicide rate from the **Peanuts – S-Metolachlor EC Herbicide Alone** section in a minimum spray volume of 20 gals/A with ground equipment. Refer to the Paraquat labels and 2,4-DB labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE WITH BENTAZON

S-Metolachlor EC Herbicide + bentazon applied at ground cracking will control species on the bentazon label and provide residual control of species listed in the **S-Metolachlor EC Herbicide Applied Alone** section of this label. Apply labeled rate of bentazon in 20 gals/A, depending on weed species and stage of growth as specified on the bentazon label, with the appropriate S-Metolachlor EC Herbicide rate from the **Peanuts – S-Metolachlor EC Herbicide Alone** section. A second bentazon application may be made in all peanutgrowing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE WITH BENTAZON + BUTYRAC 200

S-Metolachlor EC Herbicide + bentazon + 2,4-DB applied at ground cracking will control species on their labels, especially morning glories. Apply labeled rates of bentazon and 2,4-DB in 20 gals./A, depending on weed species and stage of growth as specified on the bentazon label, with the appropriate S-Metolachlor EC Herbicide rate from the **Peanuts – S-Metolachlor EC Herbicide Alone** section. A second bentazon + 2,4-DB application may be made in all peanut-growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

SEQUENTIALLY WITH ACIFLUORFEN + BENTAZON

Apply S-Metolachlor EC Herbicide according to the directions for **S-Metolachlor EC Herbicide Alone** and follow with a postemergence treatment of acifluorfen + bentazon as specified on its label for the control of weeds listed on the S-Metolachlor EC Herbicide label and on the acifluorfen + bentazon label. Refer to the **S-Metolachlor EC Herbicide – Peanuts – Alone** section and to the acifluorfen + bentazon label and follow all directions, limitations, and restrictions for each product.

MULTIPLE APPLICATIONS

Where weed pressure is heavy or where species difficult to control are expected, S-Metolachlor EC Herbicide is most effective when used as follows:

Southeast Only (AL, FL, GA, NC, SC, VA)

Preplant Incorporated: Apply S-Metolachlor EC Herbicide preplant incorporated as directed under **Peanuts – S-Metolachlor EC Herbicide Alone** or apply S-Metolachlor EC Herbicide + benefin preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

OR

Preemergence to before "ground cracking": Apply S-Metolachlor EC Herbicide any time from preemergence to before "ground cracking" at 0.99-1.98 pts./A for extended control of weeds not yet emerged. DO NOT use S-Metolachlor EC Herbicide after peanut emergence. If peanuts have emerged, use Dual Magnum® according to its label: Peanuts – Combinations – Multiple Applications. Follow the PPI or PRE application by:

Lay-by: DO NOT use S-Metolachlor EC Herbicide. Apply Dual Magnum at lay-by as directed under the **Peanuts – Alone** section of the Dual Magnum label.

Southwest Only (NM, OK, TX)

1st Application: Apply S-Metolachlor EC Herbicide preplant incorporated or preemergence to before "ground cracking" as directed under Peanuts – S-Metolachlor EC Herbicide Alone or apply S-Metolachlor Herbicide + benefin preplant incorporated as directed previously in this section. DO NOT use S-Metolachlor EC Herbicide after peanut emergence. If peanuts have emerged, use Dual Magnum according to its label. 2nd Application: DO NOT use S-Metolachlor EC Herbicide. Apply s-metolachlor at lay-by as directed under the Peanuts – Alone section of the s-metolachlor label. Use only when late germinating weeds are expected to be a problem. Refer to the product Applied Alone section for a list of weeds controlled.

Restrictions

- DO NOT apply more than the equivalent of 2.65 lbs. of active ingredient of S-Metolachlor EC Herbicide per acre during any one year. If s-metolachlor is used as a sequential treatment, the lbs. of active ingredient (1.0 pt. = 0.96 lb.) plus the lbs. of active ingredient of S-Metolachlor EC Herbicide must not exceed 2.65 lbs.
- DO NOT use S-Metolachlor EC Herbicide or other s-metolachlor products after peanuts have emerged.
- DO NOT graze or feed peanut forage or fodder to livestock for 30 days following application.
- Pre-Harvest Interval (PHI): DO NOT apply within 90 days of harvest.

BEANS, PEAS, AND LENTILS - S-Metolachlor EC Herbicide ALONE

For use on beans, peas, and lentils, including garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English*; southern peas, including blackeye, pinkeye, crowder, etc.), pinto beans, snap beans (green, wax, string), lentils, and lupines (sweet, white, white sweet, and grain).

Fall Application:

- 1. Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- 2. Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- 3. Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.66-1.98 pts./A on *medium-textured* and 1.98 pts./A on *fine-textured soils*. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not incorporate deeper than 2-3 inches. Minimize furrow and ridge formation in the tillage operations.

Restrictions

- DO NOT apply more than 1.98 pts/A (1.88 lbs ai) of S-Metolachlor EC Herbicide per year.
- DO NOT apply to frozen ground.
- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for beans, peas, and lentils.

Spring Application:

Apply S-Metolachlor EC Herbicide, either preplant incorporated or preemergence, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures.** On *coarse soils* with less than 3% organic matter, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide or 1.32 pts./A if organic matter is 3% or greater. On *medium soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.66-1.98 pts./A if organic matter content is 3% or greater. * On English peas, use only preemergence applications. If soils are cold and wet during pea germination and emergence, the use of S-Metolachlor EC Herbicide may delay maturity and/or reduce yields.

Restrictions

- DO NOT cut for hay within 120 days following a S-Metolachlor EC Herbicide application.
- DO NOT use for forage within 60 days following a S-Metolachlor EC Herbicide application.
- DO NOT apply more than 1.98 pts./A (1.88 lbs ai) of S-Metolachlor EC Herbicide per year.

BEANS, PEAS, AND LENTILS - S-Metolachlor EC Herbicide COMBINATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Restrictions

 When applying S-Metolachlor EC Herbicide in combination on beans, peas, and lentils, DO NOT cut for hay within 120 days following application.

TANK MIXTURE AND SEQUENTIAL APPLICATIONS WITH EPTC – BEANS (GREEN OR DRY)

This mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by EPTC alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section of this label for weeds controlled by S-Metolachlor EC Herbicide alone and to the EPTC label for weeds controlled by EPTC.

Preplant Incorporated: Follow instructions for use of S-Metolachlor EC Herbicide alone under Application

Procedures. **Sequential**: Apply EPTC alone preplant incorporated, as specified on that label. Follow with a preemergence application of S-Metolachlor EC Herbicide, at rates specified for S-Metolachlor EC Herbicide alone, during planting (behind the planter) or after planting, but before the weeds or crop emerge.

Refer to the **Product Information** section of this label and to the EPTC label for weather, cultural practices, and all other precautions and limitations that affect performance of these products.

Apply the labeled rate of EPTC with S-Metolachlor EC Herbicide as specified. On *coarse soils*, apply 0.79 pt./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 0.99 pt./A if organic matter content is 3% or greater. On *medium soils*, apply 0.99 pt./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.32 pts./A if organic matter content is 3% or greater. On *fine soils*, apply 1.32 pts./A of S-Metolachlor EC Herbicide if organic matter is less than 3%, or 1.32-1.66 pts./A if organic matter is 3% or greater.

*Refer to the EPTC label for rate limitations depending on geographical area, limitations and restrictions, and species and varietal restrictions.

TANK MIXTURE WITH TRIFLURALIN – BEANS (DRY – KIDNEY, NAVY, PINTO, ETC.; LIMA; AND SNAP)

S-Metolachlor EC Herbicide + trifluralin tank mix applied preplant incorporated controls those weeds listed under **S-Metolachlor EC Herbicide Applied Alone** and those weeds listed for trifluralin alone on the trifluralin label. S-Metolachlor EC Herbicide + trifluralin may be applied by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the procedures on this label and on the respective trifluralin label using equipment that provides uniform 2-inch incorporation.

Apply S-Metolachlor EC Herbicide + trifluralin tank mix using the appropriate S-Metolachlor EC Herbicide rate specified for S-Metolachlor EC Herbicide alone, and the labeled trifluralin rate from the Dry Beans, and the Lima and Snap Beans sections of the respective trifluralin label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

POTATOES – S-Metolachlor EC Herbicide ALONE

Apply S-Metolachlor EC Herbicide, either incorporated, preemergence, or postemergence to potatoes after hilling/lay-by, according to directions specified below for control of weeds listed under the **Product Information** section. Within a rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. For application by center pivot irrigation, see the **Center Pivot Irrigation Application** section of this label.

Incorporated: Apply S-Metolachlor EC Herbicide at 0.99-1.98 pts./A to the soil and incorporate into the top 3 inches before planting, using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices should not bring untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off, but before potato emergence. Use an implement that evenly distributes S-Metolachlor EC Herbicide in the top 2 inches of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

Preemergence: Apply S-Metolachlor EC Herbicide at 0.99-1.98 pts./A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.49 pts./A of S-Metolachlor EC Herbicide alone may be used where soil organic matter is between 6% and 20%.

Postemergence After Hilling/Lay-by: Apply 1.66 pts./A of S-Metolachlor EC Herbicide postemergence to potatoes through after hilling/at lay-by to control S-Metolachlor EC Herbicide-sensitive species for remainder of the growing season. This application will not control emerged weeds. It may be applied over a previous S-Metolachlor EC Herbicide application, but do not apply more than 3.57 pts./A (3.37 lbs ai) of S-Metolachlor EC Herbicide per year.

Precautions

If cool, wet soil conditions occur after application, S-Metolachlor EC Herbicide may delay maturity and/or reduce yield of Superior and other early maturing potato varieties. These directions for use do not apply to sweet potatoes or yams.

Restrictions

- DO NOT apply more than 3.57 pts/A (3.37 lbs ai) of S-Metolachlor EC Herbicide per year.
- DO NOT use on muck or peat soils.
- DO NOT apply both as a preemergence and an incorporated treatment.
- Pre-Harvest Interval (PHI): DO NOT harvest potatoes within 40 days after a lay-by application, or within 60 days after the at-planting to drag-off application.

POTATOES - S-Metolachlor EC Herbicide COMBINATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TANK MIXTURE WITH METRIBUZIN

In addition to those weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide applied in tank mix combination with, or sequentially with, any of the registered metribuzin formulations also controls the following broadleaf weeds: hairy, hemp sesbania, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard; and will provide partial control of cocklebur, nightshade, and jimsonweed. Apply S-Metolachlor EC Herbicide at 0.99-1.98 pts./A plus the labeled metribuzin use rate preemergence or postemergence to potatoes through after last hilling. Apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide on coarse soils and 1.32-1.98 pts./A on other soil textures. Within this rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. S-Metolachlor EC Herbicide will not control emerged weeds.

Refer to the metribuzin label for precautionary statements, restrictions, application information, center pivot irrigation application, weeds controlled, and varietal limitations.

Precautions

- Make postemergence applications to potatoes, except center pivot, only as a directed or semidirected spray to avoid chlorosis, minor necrosis, or leaf distortion.
- These directions for use do not apply to sweet potatoes or yams.

Restrictions

- Pre-Harvest Interval (PHI): DO NOT harvest potatoes treated with S-Metolachlor EC Herbicide in tank mixture with metribuzin within 60 days after application.
- Pre-Harvest Interval (PHI): Potatoes may not be harvested within 40 days after a lay-by application of S-Metolachlor EC Herbicide.
- DO NOT use this tank mixture on muck or peat soils.

S-Metolachlor EC Herbicide + LINURON TANK MIXTURE (EAST OF ROCKY MOUNTAINS)

Apply S-Metolachlor EC Herbicide in a tank mix combination with any of the registered linuron formulations as a preemergence broadcast application to potatoes. Apply to the soil surface after planting and before emergence of the crop or after final drag-off according to the rates appropriate to soil texture.

Refer to the **Product Information** section of this label and to the linuron label for precautionary statements, restrictions, application information, and weeds controlled.

Precautions

- To avoid crop injury, do not use on sands or loamy sands.
- To avoid crop injury, do not incorporate or spray over the top of emerged potatoes.

TANK MIXTURE WITH PENDIMETHALIN

In addition to the weeds controlled by S-Metolachlor EC Herbicide alone, this tank mixture with pendimethalin controls such problem species as kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others

specified on the pendimethalin label. Apply S-Metolachlor EC Herbicide + pendimethalin preemergence, preemergence incorporated, or early postemergence, according to the specific directions on the pendimethalin label, using the rates appropriate to soil texture.

Refer to the S-Metolachlor EC Herbicide and pendimethalin labels and observe all directions, timings, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

TANK MIXTURE WITH PENDIMETHALIN + EPTC

In addition to the weeds controlled by S-Metolachlor EC Herbicide alone, this tank mixture will control those species on the pendimethalin and EPTC labels. Refer to the S-Metolachlor EC Herbicide + pendimethalin labels for rates of those products, depending on geographical area. Refer to the respective S-Metolachlor EC Herbicide, pendimethalin, and EPTC labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

PUMPKIN – S-Metolachlor EC Herbicide ALONE Preemergence

Apply S-Metolachlor EC Herbicide preemergence (before the weeds have emerged) at 0.99 to 1.32 pts./A as an inter-row or inter-hill application in pumpkin. Leave 1 foot of untreated area over the row, or 6 inches to each side of the planted hill and/or any emerged pumpkin foliage (inter-row or inter-hill means not directly over the planted seed or young pumpkin plants). Use the lower S-Metolachlor EC Herbicide rate on soils light in texture (loamy sand or lighter) and low in soil organic matter (less than 3%). S-Metolachlor EC Herbicide applied as a broadcast spray over the planted row or hill, or applications made directly to crop foliage, will increase the risk of injury (e.g., stand loss, delayed maturity, and loss of yield) to the pumpkin crop.

Because S-Metolachlor EC Herbicide will not control emerged weeds, it must be applied before the weeds emerge. Weeds that are present should be controlled by another means, e.g., by mechanical means or using another herbicide.

Restriction

- DO NOT apply more than 1.32 pts/A (1.27 lbs ai) of S-Metolachlor EC Herbicide per year.
- Pre-Harvest Interval (PHI): DO NOT apply within 30 days before pumpkin harvest.

RHUBARB – S-Metolachlor EC Herbicide ALONE

Apply S-Metolachlor EC Herbicide at a broadcast rate of 0.66-1.32 pts./A to the soil surface in early spring, prior to crop emergence. Use lower rates on soils relatively coarse-textured and higher rates on fine textured soils. A band application may also be used, applying proportionally less spray mixture on the area actually treated. S-Metolachlor EC Herbicide will not control emerged weeds. Control emerged weeds with an appropriate registered foliar herbicide or by mechanical or physical means.

Restrictions

- DO NOT apply more than once per year.
- DO NOT apply more than 1.32 pts./A (1.27 lbs ai) of S-Metolachlor EC Herbicide per year.
- Pre-Harvest Interval (PHI): DO NOT harvest rhubarb within 62 days of the S-Metolachlor EC Herbicide application.

SAFFLOWER – S-Metolachlor EC Herbicide ALONE

Preplant Incorporated or Preemergence: Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures**.

On *coarse soils*, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.32 pts./A if organic matter is 3% or greater. On *medium soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.66-1.98 pts./A if organic matter content is 3% or greater. **Restrictions**

• DO NOT apply more than 1.98 pts/A (1.88 lbs ai) of S-Metolachlor EC Herbicide per year.

GRAIN OR FORAGE SORGHUM (SEED TREATED WITH SAFENER) – S-Metolachlor EC Herbicide ALONE

Apply S-Metolachlor EC Herbicide, either preplant surface, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below. Apply S-Metolachlor EC Herbicide alone only when

the sorghum seed has been properly treated with a seed treatment appropriate for s-metolachlor. Preplant or preemergence applications of S-Metolachlor EC Herbicide to sorghum not treated with an appropriate seed treatment will result in crop death.

Restrictions

- DO NOT apply more than 1.66 pts/A (1.59 lbs ai) of S-Metolachlor EC Herbicide per year.
- DO NOT apply S-Metolachlor EC Herbicide to frozen ground.
- If a spring application is made, DO NOT apply S-Metolachlor EC Herbicide or any other product containing S-metolachlor the following spring to grain or forage sorghum.
- Except for the split preplant surface treatment, do not make more than one application per year.
- Pre-Harvest Interval (PHI): DO NOT apply S-Metolachlor EC Herbicide postemergence within 75 days of harvest.

Fall Application for Italian Ryegrass Control: Apply S-Metolachlor EC Herbicide for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*) using 1.32-1.66 pts./A in the fall (September 1December 1) after harvest of the previous crop and before Italian ryegrass emergence. Use the lower rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. Do not incorporate deeper than 2-3 inches if tillage follows the application of S-Metolachlor EC Herbicide. For fall applications after emergence of glyphosate-resistant Italian ryegrass, Gramoxone brands can be tank mixed with S-Metolachlor EC Herbicide to control emerged ryegrass. Refer to the paraquat label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with S-Metolachlor EC Herbicide for control or improved control of other weeds present at the time of application.

Preplant Surface-Applied: Refer to instructions for use of S-Metolachlor EC Herbicide under **Application Procedures** section on this label. For minimum-tillage or no-tillage systems only, apply S-Metolachlor EC Herbicide up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.49 pts./A of S-Metolachlor EC Herbicide on *medium soils* or 1.66 pts./A on *fine soils*. Treatments less than 30 days prior to planting may be made either as a split or single application. Apply 1.32 pts./A of S-Metolachlor EC Herbicide on *coarse soils* not more than 2 weeks prior to planting. Under dry conditions, irrigation after application is necessary to move S-Metolachlor EC Herbicide into the soil.

Preplant Incorporated or Preemergence: Refer to instructions for use of S-Metolachlor EC Herbicide under **Application Procedures** section on this label. Broadcast 0.99-1.32 pts./A of S-Metolachlor EC Herbicide on *coarse soils*, 1.32-1.49 pts./A on *medium soils*, or 1.32-1.66 pts./A on *fine soils*.

Postemergence: Refer to instructions for use of S-Metolachlor EC Herbicide under **Application Procedures** section on this label. S-Metolachlor EC Herbicide may be applied broadcast postemergence at 0.99-1.32 pts./A on *coarse soils*, 1.32-1.49 pts./A on *medium soils*, or 1.32-1.66 pts./A on *fine soils*. S-Metolachlor EC Herbicide will not control emerged weeds. Therefore, emerged weeds must be controlled by cultural or chemical means. When applied alone, S-Metolachlor EC Herbicide will be safe to emerged sorghum. The risk of sorghum injury increases when adjuvants (e.g., non-ionic, crop oil), nitrogen sources (e.g., AMS, UAN), or fertilizers are applied with S-Metolachlor EC Herbicide. **Precautions**

- If sorghum seed is not properly treated with a seed treatment appropriate for s-metolachlor, preplant and preemergence applications of S-Metolachlor EC Herbicide will severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following preplant and preemergence application of S-Metolachlor EC Herbicide. The crop will normally outgrow this effect.
- Application of S-Metolachlor EC Herbicide on sorghum grown under dry mulch tillage may result in crop injury.

GRAIN OR FORAGE SORGHUM (SEED TREATED WITH SAFENER) – S-Metolachlor EC Herbicide TANK MIXTURES

Apply S-Metolachlor EC Herbicide preplant or preemergence (prior to sorghum emergence) tank mixtures with atrazine in water or fluid fertilizer. Apply preplant or preemergence in tank mixtures only when the sorghum seed has been properly treated with a seed treatment appropriate for s-metolachlor. Preplant or preemergence applications of S-Metolachlor EC Herbicide to sorghum not treated with an appropriate seed treatment will result in crop death.

IMPORTANT: FOR TANK MIXTURES WITH ATRAZINE – If applying S-Metolachlor EC Herbicide in tank mixture with atrazine, all the restrictions and rate limitations on the atrazine label must be followed if more restrictive/protective than those on this label. In addition, if atrazine is/must be applied at rates lower than those on this label, broadleaf weed control may be affected. Refer to the atrazine label for weeds controlled at the reduced rates. **Precautions**

- Applications of S-Metolachlor EC Herbicide + atrazine on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury.
- If sorghum seed is not properly treated with an appropriate s-metolachlor safener, S-Metolachlor EC Herbicide + atrazine may severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following preplant and preemergence application of S-Metolachlor EC Herbicide + atrazine. The crop will normally outgrow this effect.
- Use of S-Metolachlor EC Herbicide + atrazine on sorghum grown under dry mulch tillage may cause crop injury.

Restriction

Except for the split preplant surface treatment, do not make more than one application per year.

TANK MIXTURE WITH ATRAZINE

In addition to the weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide + atrazine also controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Procedures section on this label. For minimum-tillage or no-tillage systems only, S-Metolachlor EC Herbicide + atrazine may be applied up to 45 days prior to planting in IA, IL, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.49 pts./A of S-Metolachlor EC Herbicide + labeled rate of atrazine on *medium soils* with 1.5% organic matter or greater. Apply 1.49 pts./A of S-Metolachlor EC Herbicide + labeled rate of atrazine on *fine soils* with less than 1.5% organic matter, or apply 1.66 pts./A of S-Metolachlor EC Herbicide + labeled rate of atrazine on *fine soils* with 1.5% organic matter or greater. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application is necessary to move S-Metolachlor EC Herbicide + atrazine into the soil.

Precautions

Use on coarse soils or on medium soils with less than 1.5% organic matter may cause crop injury.

Preplant Incorporated or Preemergence: Refer to instructions for use of S-Metolachlor EC Herbicide under **Application Procedures** on this label. On *medium soils* with 1.5% organic matter or greater, apply 0.99 pt./A of S-Metolachlor EC Herbicide + labeled rate of atrazine. On *fine soils* with less than 1.5% organic matter, apply 0.99 pt./A of S-Metolachlor EC Herbicide + labeled rate of atrazine; on *fine soils* with 1.5% organic matter or greater, apply 1.19-1.32 pts./A of S-Metolachlor EC Herbicide + labeled rate of atrazine.

Precautions

Use under the following conditions may cause crop injury: on coarse soils; on medium soils with less than 1.5% organic matter; in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blacklands areas; and preplant incorporated in AZ or the Imperial Valley of CA.

TANK MIXTURE OF S-Metolachlor EC Herbicide OR S-Metolachlor EC Herbicide + ATRAZINE, WITH PARAQUAT, GLYPHOSATE + 2,4-D, OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where sorghum (seed treated with appropriate safener for S-metolachlor) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the

contact herbicides paraquat, glyphosate + 2,4-D, or glyphosate may be tank mixed with S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide + atrazine. See Comment No. 7 following Table 2. The S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide + atrazine portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

Application: Apply before, during, or after planting, but before sorghum emerges. Add paraquat, glyphosate + 2,4-D, or glyphosate and apply as directed on the product labels.

Paraquat: Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

Glyphosate + 2,4-D: apply at labeled rates taking into account weed species and size. See the glyphosate + 2,4-D label for weeds controlled, rates for specific weeds, and other information concerning use.

Glyphosate: See the glyphosate labels for weeds controlled, rates, and other use directions.

SWEET SORGHUM (SEED TREATED WITH SAFENER)

Apply S-Metolachlor EC Herbicide preplant surface, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below, only when the sweet sorghum seed has been properly treated with a seed treatment appropriate for s-metolachlor. Preplant or preemergence applications of S-Metolachlor EC Herbicide to sweet sorghum not treated with an appropriate seed treatment will result in crop death.

Soil-Applied: Apply S-Metolachlor EC Herbicide up to 45 days before planting. Use only split applications for treatments made 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application is necessary to move S-Metolachlor EC Herbicide into the soil.

S-Metolachlor EC Herbicide Rates for Soil Applications to Sweet Sorghum

Soil Type	30-45 Days Prior to Planting ¹	<30 Days Prior to Planting	At Planting ²
Coarse	Do not use	1.32 pts./A	0.99-1.32 pts./A
Medium	1.49 pts./A	1.49 pts./A	1.32-1.49 pts./A
Fine	1.66 pts./A	1.66 pts./A	1.32-1.66 pts./A

¹ Use only as a split application with 2/3 of the broadcast rate applied initially and the remaining 1/3 applied at planting.

Post-Applied: S-Metolachlor EC Herbicide may be applied postemergence to sweet sorghum for residual control of grasses and small-seeded broadleaf weeds. Postemergence application to sweet sorghum may be made to crop up to 5 inches in height. S-Metolachlor EC Herbicide will not control emerged weeds. Therefore, emerged weeds must be controlled by cultural or other chemical methods. When applied alone, S-Metolachlor EC Herbicide will be safe to emerged sweet sorghum. Use of adjuvants is prohibited on sweet sorghum.

S-Metolachlor EC Herbicide Rates for Postemergence Applications to Sweet Sorghum

Soil Type	Postemergence Rate
Coarse	0.99-1.32 pts./A
Medium	1.32 pts./A
Fine	1.32 pts./A

² Preplant incorporated or preemergence

Precautions

- If sweet sorghum seed is not properly treated with a seed treatment appropriate for s-metolachlor, soil applications of S-Metolachlor EC Herbicide prior to sorghum emergence will severely injure the crop.
- Under high soil moisture conditions prior to sweet sorghum emergence, injury may occur following soil
 applications of S-Metolachlor EC Herbicide. The crop will normally outgrow this effect.
- To avoid crop injury, do not use S-Metolachlor EC Herbicide on sorghum grown under dry mulch tillage.

Restrictions

- DO NOT apply more than once per year. S-Metolachlor EC Herbicide may be applied either as a soilapplied treatment or a postemergence treatment, but not both.
- Pre-Harvest Interval (PHI): DO NOT apply S-Metolachlor EC Herbicide postemergence within 90 days of harvest.

SOYBEANS - S-Metolachlor EC Herbicide ALONE

[optional wording NOT FOR USE IN CALIFORNIA]

Apply S-Metolachlor EC Herbicide preplant surface-applied, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below. Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures** section of this label.

Restrictions

- DO NOT apply this product to frozen ground.
- DO NOT apply more than 2.58 pts/A (2.49 lbs ai) in a single preemergence application.
- DO NOT apply more than 1.98 pts./A (1.88 lbs ai) in a single postemergence application.
- The total S-Metolachlor EC Herbicide rate applied preplant, preemergence or postemergence to soybeans during any one year must not exceed 3.87 pts./A (3.74 lbs ai).
- The combined total amount of the active ingredient (s-metolachlor) from all applications to soybeans must not exceed 3.74 lbs. ai/A.
- Pre-Harvest Interval (PHI): Make postemergence application at least 75 days before harvest.
- DO NOT graze or feed treated soybean forage, hay, or straw to livestock within 30 days after a preplant surface, preplant incorporated, or preemergence application of this product.
- DO NOT graze or feed treated forage or hay from soybeans to livestock following a postemergence application of S-Metolachlor EC Herbicide.

Fall Application for Spring Weed Control:

- 1. Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- 2. Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- 3. Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.66-1.98 pts./A of S-Metolachlor EC Herbicide on *medium-textured* and 1.98 pts./A of S-Metolachlor EC Herbicide on *fine-textured soils*. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not incorporate deeper than 2-3 inches. Minimize furrow and ridge formation in the tillage operations.

Restrictions: If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for soybeans of 2.49 pts./A depending on soil texture. DO NOT apply to frozen ground.

Fall Application for Italian Ryegrass Control: S-Metolachlor EC Herbicide may be applied for residual control of Italian ryegrass (*Lolium multiflorum*), including glyphosate-resistant populations. Apply S-Metolachlor EC Herbicide at 1.32-1.66 pts./A in the fall (September 1-December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower S-Metolachlor EC Herbicide rate for *coarse-textured soils* and the higher rate for *fine-textured soils*. A tillage operation may precede the application. Do not incorporate to a depth greater than 2-3 inches if tillage follows the application of S-Metolachlor EC Herbicide. For fall applications after emergence of glyphosate-resistant Italian ryegrass, paraquat can be tank mixed with S-Metolachlor EC Herbicide for control emerged ryegrass. Refer to the paraquat label for specific rates, application instructions,

and restrictions. Other registered herbicides may be tank mixed with S-Metolachlor EC Herbicide for control of improved control of other weeds present at the time of application.

Preplant Surface – Spring Application: Use on medium and fine soils with minimum-tillage or no-tillage systems. Apply 2/3 the labeled rate of S-Metolachlor EC Herbicide (1.66 pts./A on *medium soils* and 1.98 pts./A on *fine soils*). Applications made less than 30 days before planting may be as either a split or single treatment. Apply 1.32 pts./A of S-Metolachlor EC Herbicide on *coarse soils* not more than 2 weeks prior to planting. On soils with 6-20% organic matter or for extended residual or control of heavy weed infestations, up to 2.49 pts/A is allowed.

Preplant Incorporated or Preemergence: On *coarse soils*, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.32 pts./A if organic matter content is 3% or greater. On *medium soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide if organic matter content is less than 3%, or 1.66-1.98 pts./A if organic matter content is 3% or greater. On soils with 6-20% organic matter or for extended residual or control of heavy weed infestations, up to 2.49 pts/A is allowed.

Postemergence: Apply 0.99-1.98 pts./A as a postemergence treatment to soybeans from emergence up through the third trifoliate leaf stage. S-Metolachlor EC Herbicide will not control emerged weeds so it must be applied to a weed-free soil surface or in a tank mixture with products that provide postemergence control of weeds present at the time of application.

S-Metolachlor EC Herbicide can also be applied as part of a sequential soybean weed control program. If S-Metolachlor EC Herbicide was applied as a preplant surface, preplant incorporated, or a preemergence treatment, a second treatment of S-Metolachlor EC Herbicide can be applied postemergence provided that the total S-Metolachlor EC Herbicide rate during any one crop does not exceed 3.67 pts./A.

SOYBEANS - S-Metolachlor EC Herbicide COMBINATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Water or fluid fertilizer may be used as carrier for S-Metolachlor EC Herbicide in combination with metribuzin, linuron, metribuzin + chlorimuron-ethyl, imazethapyr, imazaquin, ethafluralin, or clomazone.

Restrictions

• For all of the following combinations, on soybeans use up to 2.49 pts./A S-Metolachlor EC Herbicide preplant incorporated or preemergence treatment on soils having an organic matter content between 6% and 20%. The total S-Metolachlor EC Herbicide rate applied to soybeans must not exceed 3.87 pts./A (3.74 lbs ai) per year.

TANK MIXTURE WITH METRIBUZIN

In addition to those weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide + metribuzin, when applied as directed, also controls hairy nightshade, hemp sesbania, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard, and provides partial control of cocklebur and jimsonweed.

Apply S-Metolachlor EC Herbicide and metribuzin preplant incorporated or preemergence, using the appropriate rates from the table below. **Preplant Incorporated or Preemergence:** Follow instructions for use of S-Metolachlor EC Herbicide alone under **Application Procedures**.

Sequential: Apply S-Metolachlor EC Herbicide alone **Preplant Incorporated**, as specified in the table below for this tank mixture. Follow with a preemergence application of metribuzin during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

Refer to the metribuzin label for planting details and soybean variety restrictions.

S-Metolachlor EC Herbicide + Metribuzin - Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of metribuzin

Broadcast Rate per Acre

Soil Texture*	0.5 to less than 3% organic matter	3% organic matter or greater
	S-Metolachlor EC Herbicide	S-Metolachlor EC Herbicide
COARSE	0.79-0.99 pts.	0.99 pt.
Loamy sand (over 2% organic matter), sandy loam		
MEDIUM	0.99-1.32 pts.	1.32 pts
FINE	1.32 pts.	1.32-1.66 pts.
Mississippi Delta only	1.32 pts.	1.32-1.66 pts.
Silty clay, clay		
Muck or Peat (soils with more th	an 20% organic matter) – DO	NOT APPLY

^{*} On all sand and on loamy sand with less than 2% organic matter, do not use this tank mixture preemergence, or the sequential treatment. Do not use the tank mixture preplant incorporated on any sand, loamy sand, or sandy loam, or crop injury may occur.

Restrictions

Follow most restrictive limitations and precautions on the **S-Metolachlor EC Herbicide – Soybeans Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the metribuzin label.

Precautions

To avoid crop injury, do not use the tank mix or sequential application on soil with less than 0.5% organic matter or on alkaline soil with a pH over 7.4, or crop injury may occur. If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.

TANK MIXTURE WITH LOROX

In addition to those weeds controlled by S-Metolachlor EC Herbicide alone, S-Metolachlor EC Herbicide + linuron, applied preemergence, also controls the following broadleaf weeds: lambsquarters, prickly sida, ragweed, smartweed, Venice mallow, and wild mustard, and provides partial control of cocklebur, jimsonweed, morningglory, and velvetleaf.

Preemergence: Apply during planting (behind planter) or after planting, but before weeds or soybeans emerge. Refer to the linuron label for planting details. Apply the appropriate rates from the table below.

Precaution

To avoid crop injury, do not use on soil with less than 0.5% organic matter.

S-Metolachlor EC Herbicide + Linuron - Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of linuron

Broadcast Rate per Acre

Soil Texture*	0.5% to Less Than 3% Organic Matter	3% Organic Matter or Greater
COARSE**	0.79 pt	0.99 pt.
MEDIUM	0.99 pt.	1.32 pts.
FINE	1.32 pts.	1.32-1.66 pts.
Muck or Peat (soils with more than 20% organic matter) – DO NOT USE		

^{*} DO NOT use on sand, gravelly soils, or exposed subsoils.

^{**} DO NOT use on loamy sand, except in the northeastern U.S. on loamy sand with over 1% organic matter.

TANK MIXTURE WITH TRIFLURALIN

S-Metolachlor EC Herbicide + trifluralin tank mix applied preplant incorporated controls those weeds listed under **S-Metolachlor EC Herbicide Applied Alone** and those weeds listed for trifluralin alone on the trifluralin label. S-Metolachlor EC Herbicide + trifluralin may be applied by ground or aerial equipment and incorporated up to 14 days before planting. Follow the procedures on the trifluralin and S-Metolachlor EC Herbicide labels, using equipment that provides uniform 2-inch incorporation.

Apply S-Metolachlor EC Herbicide + trifluralin tank mix using the appropriate rate from the **Soybeans – S-Metolachlor EC Herbicide Alone** section of this label and the trifluralin alone section of the trifluralin label for the specific soil texture/organic matter classification and weed species expected.

To control DNA-resistant goosegrass* and other species on the respective labels where the soil organic matter is 3% or less, apply the rate in the table below.

S-Metolachlor EC Herbicide + Trifluralin – Organic Matter Content Less Than 3%

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of trifluralin

Broadcast Rate per Acre

	Organic Matter Less Than 3%
COARSE*	0.79-0.99 pt.
MEDIUM	0.99 pt.
FINE	1.32 pts.

^{*} Where a range of rates is given for S-Metolachlor EC Herbicide, use the minimum rate where DNAresistant goosegrass is the predominant species.

Follow the most restrictive limitations and precautions on the **Soybeans – S-Metolachlor EC Herbicide Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the trifluralin labels.

TANK MIXTURE WITH IMAZAQUIN

This tank mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by imazaquin alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the imazaquin label for weeds controlled by imazaquin. Refer to the imazaquin label for geographical locations where this tank mixture may be applied.

Apply S-Metolachlor EC Herbicide + imazaquin preplant incorporated or preemergence, using rates in the table below. Follow use directions under **Application Instructions** on the imazaquin label. For preplant incorporated applications, apply and incorporate within 30 days before planting. Observe all other precautions and limitations on the imazaquin labels.

S-Metolachlor EC Herbicide + Imazaquin – Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of imazaguin.

Broadcast Rate per Acre

	Less Than 3% Organic Matter	3% or More Organic Matter
COARSE	0.79 pt.	0.99 pt.
MEDIUM	0.99 pt.	1.32 pts.
FINE 1.32 pts. 1.32-1.66* pts.		
Muck or Peat (soils with more than 20% organic matter) – DO NOT USE		

^{*} Use the higher rate of S-Metolachlor EC Herbicide if heavy weed infestations are expected.

Restrictions: Follow the most restrictive limitations and precautions on the **S-Metolachlor EC Herbicide – Soybeans Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the imazaquin label.

TANK MIXTURE WITH METRIBUZIN + CHLORIMURON-ETHYL

This tank mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by metribuzin + chlorimuron-ethyl alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the metribuzin + chlorimuron-ethyl label for weeds controlled by metribuzin + chlorimuron-ethyl .

Apply preplant incorporated or preemergence, using the appropriate rates from the table below. **Preplant Incorporated:** Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2 inches of soil before planting soybeans. **Preemergence:** Apply after planting, but before soybeans emerge.

Follow the most restrictive limitations and precautions on the **S-Metolachlor EC Herbicide – Soybeans Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the metribuzin + chlorimuronethyl label, including varietal restrictions.

S-Metolachlor EC Herbicide + Metribuzin + Chlorimuron-ethyl- Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of metribuzin + chlorimuron-ethyl. **Broadcast Rate per Acre**

	Less Than 3% Organic Matter	3% or More Organic Matter
COARSE	0.79 pt.	0.99 pt.
MEDIUM	0.99 pt.	1.32 pts.
FINE	1.32 pts. 1.32-1.66* pts.	
Muck or Peat (soils with more than 20% organic matter) – DO NOT USE		

^{*} Refer to the metribuzin + chlorimuron-ethyl label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.

Restriction: DO NOT apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as noted on the metribuzin + chlorimuron-ethyl label.

TANK MIXTURE WITH CLOMAZONE

This tank mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by clomazone alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the clomazone label for weeds controlled by clomazone.

Apply S-Metolachlor EC Herbicide + clomazone preplant incorporated, using rates in the table below. Follow all clomazone application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.

Follow the most restrictive limitations and precautions on the **S-Metolachlor EC Herbicide – Soybeans Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the clomazone label, including rotational restrictions.

S-Metolachlor EC Herbicide + Clomazone - Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of clomazone.

Broadcast Rate per Acre

Soil Texture	0.5-3%	Greater Than 3% Organic
	Organic Matter	Matter
COARSE	0.79 pt.	0.99 pt.
MEDIUM	0.99 pt.	1.32 pts.
FINE	1.32 pts.	1.32-1.66 pts.

TANK MIXTURE WITH ETHAFLURALIN

This tank mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by ethafluralin alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the ethafluralin label for weeds controlled by ethafluralin.

Apply S-Metolachlor EC Herbicide and ethafluralin preplant incorporated, using the appropriate rates from the table below.

Preplant Incorporated: Follow soil preparation procedures for ethafluralin.

Sequential: Apply ethafluralin alone preplant incorporated as specified on the ethafluralin label. Follow with a preemergence application of S-Metolachlor EC Herbicide during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

S-Metolachlor EC Herbicide + Ethafluralin - Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of ethafluralin.

Broadcast Rate per Acre

Soil Texture	Less Than 3% Organic Matter	3% or More Organic Matter
COARSE	0.99-1.32 pts.	1.32 pts.
MEDIUM	1.32-1.66 pts.	1.32-1.66 pts.
FINE 1.32-1.66 pts. 1.66-1.98 pts.		
Muck or Peat (soils with more than 20% organic matter) – DO NOT USE		

Follow the most restrictive limitations and precautions on the **S-Metolachlor EC Herbicide – Soybeans Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the ethafluralin label.

TANK MIXTURE WITH IMAZETHAPYR

This tank mixture controls all weeds controlled by S-Metolachlor EC Herbicide alone and by imazethapyr alone. Refer to the **S-Metolachlor EC Herbicide Applied Alone** section for weeds controlled by S-Metolachlor EC Herbicide and to the imazethapyr label for weeds controlled by imazethapyr. Refer to the imazethapyr label for geographical locations where this tank mixture may be applied.

Apply S-Metolachlor EC Herbicide + imazethapyr early preplant, preplant incorporated, or preemergence after planting, using rates in the table below. Application can be made in water or liquid fertilizer. Follow all use directions under Soil Applications on the imazethapyr label. For early preplant and preplant incorporated applications, apply within 30 days before planting.

Follow the most restrictive limitations and precautions on the **S-Metolachlor EC Herbicide – Soybeans Alone** section of the S-Metolachlor EC Herbicide label and the Soybean directions on the imazethapyr label, including rotational restrictions.

S-Metolachlor EC Herbicide + Imazethapyr - Soybeans

Apply indicated rates of S-Metolachlor EC Herbicide with labeled rates of imazethapyr.

Broadcast Rate per Acre

Soil Texture	Less Than 3% Organic Matter	3% or More Organic Matter
COARSE	0.79 pt.	0.99 pt.
MEDIUM	0.99 pt.	1.32 pts.
FINE	1.32 pts.	1.32-1.66 pts.

Sequential: Apply S-Metolachlor EC Herbicide early preplant, preplant incorporated, or preemergence after planting at 0.79 pt./A on *coarse soils* and 0.99 pt./A on *medium*- and *fine-textured soils*. Follow with a sequential postemergence application of imazethapyr to control emerged weeds according to the imazethapyr label. S-Metolachlor EC Herbicide will improve the consistency and level of control from imazethapyr on most grass species. Refer to the imazethapyr postemergence label for a listing of weeds controlled, application rate, and growth stage limitations.

TANK MIXTURE WITH METRIBUZIN, IMAZAQUIN, LINURON, METRIBUZIN + CHLORIMURON-ETHYL, OR IMAZETHAPYR, PLUS PARAQUAT, OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where soybeans are planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides paraquat, or glyphosate may be added to a tank mix of either S-Metolachlor EC Herbicide + metribuzin, S-Metolachlor EC Herbicide + imazaquin, S-Metolachlor EC Herbicide + linuron, S-Metolachlor EC Herbicide + metribuzin + chlorimuron-ethyl, or S-Metolachlor EC Herbicide + imazethapyr. When used as directed, the paraquat portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on the glyphosate label. The S-Metolachlor EC Herbicide + metribuzin, imazaquin, linuron, metribuzin + chlorimuron-ethyl, or imazethapyr portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for S-Metolachlor EC Herbicide + metribuzin, S-Metolachlor EC Herbicide + imazaquin, S-Metolachlor EC Herbicide + metribuzin, respectively.

Refer to the label of each product used in combination and observe the planting details, soybean variety restrictions, information regarding application to soybeans, geographical restrictions, and all other precautions and limitations.

Application: Apply before, during, or after planting, but before the soybeans emerge. Add paraquat or glyphosate and apply as directed on the product labels.

Paraquat: Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

Restriction

 DO NOT apply combinations containing paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Glyphosate: See the glyphosate label for weeds controlled, rates, and other use directions. Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

S-Metolachlor EC Herbicide + Metribuzin + Paraquat, or Glyphosate

On loamy sand with over 2% organic matter, apply 0.99 pt./A of S-Metolachlor EC Herbicide + labeled rate of metribuzin. On *medium soils*, apply 1.32 pts./A of S-Metolachlor EC Herbicide + labeled rate of metribuzin. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide + labeled rate of metribuzin.

Precautions

To avoid crop injury, do not use this tank mixture on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and on loamy sand with less than 2% organic matter. If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.

S-Metolachlor EC Herbicide + Imazaquin + Paraquat, or Glyphosate

On *coarse soils*, apply 0.99 pt./A of S-Metolachlor EC Herbicide + labeled rate of imazaquin. On *medium soils*, apply 1.32 pts./A of S-Metolachlor EC Herbicide + labeled rate of imazaquin. On *fine soils*, apply 1.66 pts./A of S-Metolachlor EC Herbicide + labeled rate of imazaquin.

Restrictions

- Pre-Harvest Interval (PHI): DO NOT apply within 90 days of harvest.
- DO NOT graze or feed treated soybean forage, hay, or straw to livestock.

S-Metolachlor EC Herbicide + Linuron + Paraquat, Glyphosate

On *coarse soils**, apply 0.99 pt./A of S-Metolachlor EC Herbicide + labeled rate of linuron. On *medium soils*, apply 1.32 pts./A of S-Metolachlor EC Herbicide + labeled rate of linuron. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide + labeled rate of linuron.

* DO NOT use on loamy sand, except in the northeastern U.S. on loamy sand with over 1% organic matter, or injury may occur. DO NOT use on sand, gravelly soils, or exposed subsoils, or injury may occur.

Precaution

• To avoid crop injury, do not use on soil with less than 0.5% organic matter.

S-Metolachlor EC Herbicide + Metribuzin + chlorimuron-ethyl, + Paraquat, Glyphosate

Use only where soils have 0.5-5% organic matter. On *coarse soils* (except sand), apply 0.99 pt./A of S-Metolachlor EC Herbicide, on *medium soils*, apply 1.32 pts./A of S-Metolachlor EC Herbicide, and on *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. Refer to the metribuzin + chlorimuron-ethyl label for appropriate rate, according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

Restriction

• DO NOT apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as noted on the metribuzin + chlorimuron-ethyl label.

S-Metolachlor EC Herbicide + Imazethapyr + Paraquat, Glyphosate

On *coarse soils*, apply 0.99 pt./A of S-Metolachlor EC Herbicide, on *medium soils*, apply 1.32 pts./A of S-Metolachlor EC Herbicide, on *fine soils*, apply 1.66 pts./A of S-Metolachlor EC Herbicide + labeled rate of imazethapyr. Refer to the imazethapyr + paraquat and glyphosate labels for appropriate rate, according to geographical location, soil and organic matter classification, pH limitations, and all other use directions.

POSTEMERGENCE USE ON SOYBEANS – S-Metolachlor EC Herbicide TANK MIXTURES Tank Mixture with Glyphosate

S-Metolachlor EC Herbicide at 0.99-1.32 pts./A may be tank mixed with glyphosate products at labeled rates and applied from emergence up through the third trifoliate leaf stage of glyphosate-tolerant soybeans. S-Metolachlor EC Herbicide alone will not control emerged weeds. Use this treatment only on soybeans designated for use with glyphosate (e.g., glyphosate-tolerant soybeans). The glyphosate product must be registered for postemergence use in glyphosate-tolerant soybeans.

Tank Mixture with Glufosinate

Use this treatment only on soybeans designated for use with glufosinate. S-Metolachlor Herbicide at 0.99-1.32 pts./A may be tank mixed with glufosinate herbicides at labeled rates and applied from emergence up through the third trifoliage leaf stage of soybeans. S-Metolachlor EC Herbicide alone will not control emerged weeds.

Follow the tank mix product label for adjuvant suggestions. The use of COC or UAN with S-Metolachlor Herbicide may result in temporary crop injury.

Restrictions

- DO NOT apply more than 1.32 pts./A (1.27 lbs ai) postemergence.
- Pre-Harvest Interval (PHI): Make postemergence application at least 90 days before harvest.
- DO NOT graze or feed treated forage or hay from soybeans to livestock following a postemergence application of S-Metolachlor EC Herbicide.

SUGAR BEETS – S-Metolachlor EC Herbicide ALONE Postemergence Applications

S-Metolachlor EC Herbicide may be applied postemergence to sugar beets after the sugar beets have reached the first true-leaf stage. However, because S-Metolachlor EC Herbicide is primarily a soil-active herbicide, it must be applied prior to weed emergence in order to provide consistent control of listed weeds. As such, weeds that are emerged with or before the crop, or that are present at the time

S-Metolachlor EC Herbicide is applied, must be controlled with another appropriately labeled herbicide. Apply S-Metolachlor EC Herbicide at 0.99 pt./A on *coarse soils*, 1.32 pts./A on *medium soils*, and 1.66 pts./A on *fine*

soils. More than one postemergence application may be applied, but the total must not exceed 2.58 pts./A. Weeds present at the time of application will not be controlled.

Precaution

In coarse soils, S-Metolachlor EC Herbicide applied before emergence of sugar beets (i.e., other than postemergence) may cause injury.

Restrictions

- DO NOT apply more than 2.58 pts./A (2.49 lbs ai) postemergence.
- Pre-Harvest Interval (PHI): DO NOT harvest within 60 days after the last application.

SUGAR BEETS - S-Metolachlor EC Herbicide TANK MIX COMBINATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

S-Metolachlor EC Herbicide may be tank mixed with quizalofop p-ethyl, sethoxydim, clethodim, clopyralid, or flusulfuron methyl and applied to sugar beets. Tank mixtures of these products with S-Metolachlor EC Herbicide will increase the risk of crop injury over that of either product applied alone, as the S-Metolachlor EC Herbicide formulation has some adjuvant properties. The addition of a spray adjuvant such as crop oil concentrates (COC's) or methylated seed oils (MSO's) can further increase the risk of crop injury. Injury risk can be reduced by using the lowest effective rate of the tank mix partner(s) and/or adjuvant and by avoiding applications under adverse growing conditions or high soil or air humidity.

SUGARCANE

Apply S-Metolachlor EC Herbicide as a preplant, preemergence, or postemergence treatment for weed control in sugarcane. It may also be used in a treatment program that includes a preplant/preemergence application followed by a postemergence/post-directed application.

Restrictions:

- DO NOT apply more than 1.70 qts/A (3.24 lbs ai) of S-Metolachlor EC Herbicide per year.
- **DO NOT** apply more than 1.21 qts/A (2.32 lbs ai) of S-Metolachlor EC Herbicide as a preplant or preemergence application per year.
- **DO NOT** apply more than 0.97 qts/A (1.86 lbs ai) of S-Metolachlor EC Herbicide as a postemergence application per year.
- **DO NOT** apply more than 0.49 qts/A (0.93 lbs ai) of S-Metolachlor EC Herbicide as a postemergence application if a preplant or preemergence application was made.
- DO NOT make more than two applications per year.
- DO NOT make applications less than 14 days apart.
- DO NOT apply to sugarcane that is taller than 60 inches.
- **DO NOT** make a postemergence application within 100 days of harvest.
- DO NOT exceed the total combined maximum annual sugarcane rates for s-metolachlor container products.

Apply S-Metolachlor EC Herbicide at a rate of 0.88 – 1.21 qts/A before planting, preemergence after new plantings, or after harvest, but before re-emergence of ratoon-cane. Use the higher rate on heavier soils and soils with higher organic matter content.

Postemergence Applications

S-Metolachlor EC Herbicide will not control emerged weeds so apply only to a weed-free soil surface or in tank mixture with products that provide postemergence control of weeds present at the time of application. Apply S-Metolachlor EC Herbicide at 0.49 – 0.97 qts/A postemergence before the sugarcane reaches 60 inches in height. Postemergence applications may be made as broadcast post-over-the-top or as post-directed spray to soil between the rows and the base of the sugarcane.

If a preemergence application was made earlier in the season (not to exceed 1.21 qts/A), only 0.49 qts/A may be applied postemergence. The total amount of S-Metolachlor EC Herbicide applied (preemergence + postemergence) may not exceed 1.70 qts/A/year.

SUGARCANE - S-Metolachlor EC Herbicide TANK MIX COMBINATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

This product may be tank mixed with other registered sugarcane herbicides, insecticides, and fungicides. The tank mix partners are to be applied by the same methods and the same timings as S-Metolachlor EC Herbicide unless otherwise specified in the tank mix product label. Perform a compatibility test before spraying the tank mix application.

SUNFLOWERS – S-Metolachlor EC Herbicide ALONE Preplant Incorporated or Preemergence

Within the rate ranges given below, use the higher rate of S-Metolachlor EC Herbicide if heavy weed infestations are expected. On *coarse soils* with organic matter less than 3%, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide; apply 1.32 pts./A if organic matter is 3% or greater. On *medium soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. On *fine soils* with organic matter of less than 3%, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide; apply 1.66-1.98 pts./A if organic matter is 3% or greater.

Restrictions

- DO NOT apply more than 1.98 pts/A (1.88 lbs ai) of S-Metolachlor EC Herbicide per year.
- DO NOT allow livestock to graze or feed in treated area.
- **DO NOT** exceed the maximum label rates for sunflowers for the soil type.

TOMATOES – S-Metolachlor EC Herbicide ALONE Transplanted

Apply S-Metolachlor EC Herbicide preplant incorporated or preplant before transplanting. If the latter method is used, keep soil disturbance to a minimum during the transplanting operation. Application may also be post directed to transplants after the first settling rain or irrigation. When an application is made post-directed, apply in a minimum of 20 gallons of water per acre and minimize contact with tomato plants. S-Metolachlor EC Herbicide will not control emerged weeds. In bedded transplanted tomatoes, apply S-Metolachlor EC Herbicide preplant non-incorporated to the top of the pressed bed as the last step prior to laying plastic. S-Metolachlor EC Herbicide may also be used to treat row-middles in bedded tomatoes, as long as the total amount of S-Metolachlor EC Herbicide does not exceed the maximum allowed per crop.

Seeded

S-Metolachlor EC Herbicide may be applied post-directed to direct-seeded tomatoes. Tomato plants must be at least 4 inches tall at the time of application, and the product must be applied in a minimum of 20 gallons of water per acre. Minimize spray contact with tomato plants. S-Metolachlor EC Herbicide will not control emerged weeds.

Tomato Use Rates: On coarse soils, apply 0.99-1.32 pts./A of S-Metolachlor EC Herbicide if organic matter is less than 3% or 1.32 pts./A if organic matter is 3% or greater. On *medium soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide. On *fine soils*, apply 1.32-1.66 pts./A of S-Metolachlor EC Herbicide if organic matter is less than 3% or 1.66-1.98 pts./A if organic matter is 3% or greater.

Precautions

- may damage transplants that have been weakened by any cause. To prevent damage, plant only healthy transplants. Do not plant when wet, cool, or unfavorable growing conditions exist.
- In transplanted tomatoes, if S-Metolachlor EC Herbicide is applied preplant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower end of the rate range for the given soil type, or damage may occur.
- For row-middle applications where tomatoes are grown on sandy soils and where high soil moisture conditions can exist (e.g., low binding and high evaporation conditions), as may be found in the States of Florida, Georgia, Maryland, and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by: a) incorporating the S-Metolachlor EC Herbicide immediately following application, b) applying the S-Metolachlor EC Herbicide seven or more days before transplanting (but only after the beds have been formed), c) minimizing the application of S-Metolachlor EC Herbicide onto the plastic of the bed, or d) any combination of the above.
- Applications may be made using ground equipment, in concentrated spray volumes.
- Applications may be made as a foliar broadcast spray to the soil within 1 week of transplanting and again at blooming/fruiting to the row middles as a banded/directed application 38-77 days after the first treatment.

Restrictions

- DO NOT apply more than 1.98 pts/A (1.88 lbs ai) of S-Metolachlor EC Herbicide per year.
- **DO NOT** apply to varieties or cultivars with unknown tolerance to S-Metolachlor EC Herbicide.
- **DO NOT** exceed the maximum label rate for the soil texture per year.
- Apply only by ground application.
- 90-Day PHI If the single application rate of S-Metolachlor EC Herbicide is greater than 1.32 pts./A (up to 1.98 pt./A), do not harvest tomatoes within 90 days of application.
- 30-Day PHI If the application of S-Metolachlor EC Herbicide does not exceed 1.32 pts./A, do not harvest tomatoes within 30 days of application.

When applying at 1.32 pts./A with a 30-day PHI, the following restrictions apply:

- DO NOT exceed two applications per year.
- The use of adjuvants is prohibited.

S-Metolachlor EC Herbicide FOR USE ON SOD FARMS

DO NOT USE IN GREENHOUSES OR OTHER ENCLOSED STRUCTURES.

APPLICATION PROCEDURES

Ground Application: Apply S-Metolachlor EC Herbicide alone or in tank mixtures by ground equipment in a minimum of 10 gallons of spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. For S-Metolachlor EC Herbicide tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the following formula:

band width in inches row width in inches X broadcast rate per acre = Amount needed per acre of field

Aerial Application (Sod Farms Only): Apply S-Metolachlor EC Herbicide in water alone or in tank mixtures with atrazine, simazine, or other herbicides registered for use on sod farms in a minimum total volume of 2 gal/A by aircraft. See Turfgrass section for a listing of applicable warm-season grasses. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, apply at a maximum height of 10 ft, using low- drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed is 10 mph or less. To assure that spray will not adversely affect

adjacent sensitive nontarget plants, apply S-Metolachlor EC Herbicide or S-Metolachlor EC Herbicide mixtures at a minimum upwind distance of 400 ft from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders must avoid inhalation of spray mist and prolonged contact with skin.

Turfgrass

Warm Season Grasses (Bermudagrass, Centipedegrass, St. Augustinegrass, Bahiagrass, and Zoysiagrass) including Commercial St. Augustinegrass Sod Production

Apply **S-Metolachlor EC Herbicide before weeds emerge**. Since soil moisture is necessary for activation, irrigate with ½ inch of water if rainfall does not occur within 7 days after treatment (See following Precautions).

Weeds Controlled

Common Name	Scientific Name	Rate of S-Metolachlor EC Herbicide*
Annual sedge	Cyperus compressus	
Yellow nutsedge	Cyperus esculentus	2.58 pt/A
Smooth crabgrass	Digitaria ischaemum	
Large crabgrass	Digitaria sanguinalis	
Bearded sprangletop	Leptochloa fascicularis	
Mexican sprangletop	Leptochloa uninervia	1.27-2.58 pt/A
Doveweed	Murdannia nudiflora	
Annual bluegrass	Poa annua	

^{*1.0} pt/A = 0.3 ml/1,000 sq ft 1.3 pt/A = 0.4 ml/1,000 sq ft 2.6 pt/A = 0.9 ml/1,000 sq ft

Restrictions:

- DO NOT use S-Metolachlor EC Herbicide on turfgrasses in New York State.
- DO NOT use on golf greens, tees, or aprons
- Split rate of applications can be made at rates not less than 0.99 pt/A (0.89 lbs ai/A).
- **DO NOT** apply more than 2.58 pts/A (2.48 lbs ai/A) in a single application.
- DO NOT apply more than once every 6 weeks.
- For commercial sod production, **DO NOT** apply more than 4.17 pt/A (3.97 lbs ai/A) per year to the same area used for sod production.
- For commercial sod production, **DO NOT** make more than 4 applications per acre per year (not to exceed 4.17 pts/A (3.97 lbs ai/A) per year).
- DO NOT graze or feed turf clippings to animals.

Precautions for all uses on sod farms:

Delayed spring green-up, temporary slowing of growth and yellowing may occur following application. To avoid turf injury:

- Application of a nitrogen-containing fertilizer at or soon after applying S-Metolachlor EC Herbicide will minimize delay in spring green-up and any temporary yellowing;
- Use only on turfgrass not under stress from infestations of insects, nematodes, or diseases;
- · Do not seed or overseed with desirable turfgrass 4 months before or after treatment, and
- Do not apply this product to newly seeded grasses until they have overwintered and have a well-developed rhizome system.
- Before using S-Metolachlor EC Herbicide in the tank mix with fluid fertilizer or other registered pesticides, determine the tolerance of the turf species by applying the combination to a limited area during a period of active growth.
- In turfgrass areas which have heavy thatch, the weed control of S-Metolachlor EC Herbicide may be reduced.

STORAGE AND DISPOSAL

Pesticide Storage

This product may be stored at temperatures down to 30 degrees below 0°F.

Pesticide Disposal

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

Container Handling [equal to or less than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full of water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) or pressure rinse promptly after emptying.

Triple rinse: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several ties. Turn the container over onto its other end and tip it back and forth several times.

Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

<u>Pressure rinse</u>: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

IMPORTANT INFORMATION

READ BEFORE USING PRODUCT

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Source Dynamics, LLC or Seller. Handling, storage, and

use of the product by Buyer or User are beyond the control of Source Dynamics, LLC and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Source Dynamics, LLC and Seller harmless for any claims relating to such factors.

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